Speaking of pragmatics:
Addressing discourse in Finnish and Japanese syntax

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This dissertation is submitted for the degree of Doctor of Philosophy.

Declaration

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the Degree Committee of the Modern and Medieval Languages faculty.

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Abstract

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Matters of discourse are often dismissed into the fringes of linguistics. However, a growing body of recent research on various discourse-related elements has revived the idea attributed to Ross (1970) of representing the notions of speaker and addressee syntactically.

The goal of this dissertation is to shed further comparative light on the syntactization of pragmatics – especially speakers and addressees– and to contribute to the understanding of what kind of cross-linguistic points of variation can be found here. The comparison focuses on Finnish and Japanese, chosen as they are genetically and geographically unrelated, yet typologically similar in manifesting a great degree of discourse-sensitivity.

I argue that to wholly understand a variety of discourse-related phenomena – discourse particles, the expression of contrast, and different instances of nullness – the standard structures postulated for Finnish and Japanese syntax have to be reconsidered, and build up to encode additional speech act-related layers in accordance with Wiltschko and Heim's (2016) Universal Spine Hypothesis. Chapter 3 discusses the Finnish second-position clitics *-hAn* and *-pA* as well as an array of Japanese sentence-final particles, showing that their pragmatic contribution is best understood through notions relating to discourse participants, and that this implies the presence of a speech act -related layer above the CP. Chapter 4 contrasts the behaviour of the particles with contrastive elements in the two languages, showing that there is a strong empirical case to be made for a divide between the CP and the higher layer. Chapter 5 zooms in on the inner structure of the higher layer, and argues based on evidence from interrogatives that the speech act layer is further divided into Grounding and Response layers. Finally, I turn to the importance of internal contrasts and scales in syntax: gradience and contrasts built on hierarchies are shown to play a crucial role in properly understanding the behaviour of null subjects and possessive suffixes in Finnish and case marker drop in Japanese.

What emerges is a re-thought syntactic frame for Finnish and Japanese as well as new comparative evidence on the importance of speakers and addressees.

Acknowledgements

I used to think typing up a PhD was a challenge. That was until I got to the end, and realized that all the theoretical jostling and empirical hurdling has nothing on the lower levels of Dante's inferno that is acknowledgements. It's all about navigating between Scylla and Charybdis – you don't want to hit the immense social *faux pas* of forgetting to mention someone and, heaven forbid, sounding like you actually did most of the work for your thesis yourself, even if you did (I'd hope so; I hear they have rather effective plagiarism detecting mechanisms in place), nor do you want to veer into pouring out the story of you life and thanking everyone from the lady on the street who disentangled your skirt from your bike chains (well, it *did* save lot of time for writing so maybe a thank you is in order…) to the bread man at the market who has kept you well carbed-up with their magical 100% rye sourdough (okay, there's no brain function without carbs, so thanks). But to get back to the point: writing this is a struggle, and I'm thankful that I most likely will never have to give an Academy Awards acceptance speech.

The reason that everything else in my degree has been much smoother sailing than this is, first and foremost, my supervisor Theresa Biberauer. How someone can store so much knowledge in their brain will remain a mystery to me – my laptop would crash if it had even half the articles that Theresa has catalogued in her inner library. The most maximal projection of thank yous goes to her introducing me to syntax back in the days of the rivetingly named undergrad paper, Structures and Meanings, her never-ending enthusiasm for all things linguistic, all her scrutiny and comments, and the occasional smiley face next to some of my bad-pun sub-headings.

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This dissertation would not have been complete without time spent in Japan, during which I learned a lot – I now know how to survive an earthquake, how not to get blown away by a typhoon, and also a thing or two about Japanese linguistics. For the latter, I have my invaluable Tokyo contacts to thank: Maki Kubota poured impressive amounts of her time and patience into checking my survey sentences, while Gen Fujita and Tomohiko Ooigawa always took the time to answer my questions in impressive detail.

It's not all been pretending to be a (slightly) less attractive version of Scarlett Johansson in *Lost in Translation*, though: after all, a PhD is about free-willingly committing to obscure study and a life in a library. It's great to know that I'm not the only one doing that: the Edinburgh lot has always been superbly friendly, encouraging and fun at their conferences and otherwise, no matter what their topic of research. And of course, The Cambridge gang – especially the Grad Centre, a.k.a. the 'Immigrads' – has done so, too, and much beyond: we'll always be united in our fight for a coffee machine and a functioning sink.

Going on would risk turning this into even more of a self-indulgent biography exercise, so although I could, for example, thank my family for putting up with my not-so-practical, not-so-world-saving path of study instead of putting my time, energy and funding into battling the rise in Xanax abuse or tackling new forms of childhood poverty, I won't do so here. Anyone I've forgotten, please forgive me; I said this was a struggle, and I'll probably be hitting my head in the wall after submitting this and remembering everyone who I omitted.

Abbreviations

This dissertation uses the following non-Leipzig glosses:

A-MOOD	addressee-mood
ADE	adessive
ANTHIHON	antihonorific
AOR	aorist
ASP	aspectual marker
COMPARAT	comparative
CONJ	conjunct marker
COS	change of state aspect
DIM	diminutive
DISJ	disjunct marker
ELA	elative
EMPH	emphatic
EVID	evidential
EXH	exhortative
EXPL	expletive
FIN	finite
HON	honorific
ILL	illative
INE	inessive
INT	interjection
KSE	purpose clause/ rationale infinitival
MA/PTCP	agent participle
MOD	modal
PART	partitive
POL	politeness marking
S-MOOD	speaker-mood
SENS	non-visual sensory
TRANSL	translative
VA/PTCP	active present participle
VOC	vocative case

Chapter 1 Introduction: Finnish and Japanese – unlikely allies?

It is a truth universally acknowledged that Finnish and Japanese are not genetically related nor do they show intensive contact. Separated by over 7,000 kilometers, Siberia, and some sea, there is no theory of past population movements that makes a valid claim of a relevant genetic link between the languages;[1] there is no surprise twist of geographical separation, such as the one explaining how Finnish and Hungarian came to be separated from both each other and their starting point in the Urals. There is no pervasive language contact, either, despite a certain cultural affinity between the populations – the Moomins being a prime example of Finno-Japanese collaboration – that would tie the languages and their features historically together.

What is less universally acknowledged, then, is that the two can, in fact, offer a valid and interesting point of comparison. Both languages have been – in separate works – extensively cited for their discourse sensitivity. For example, the literature on Japanese scrambling and its discourse effects goes beyond extensive, debating whether scrambling results from A- or A'-movement (Saito, 1985, 1986, 1992, 1994; Tada, 1993; Grewendorf and Sabel, 1999; Nemoto, 1999), whether it is related to focus or has some other discourse effects (Miyagawa, 1997, 2001, 2003, 2005; Bošković and Takahashi, 1998; Kawamura, 2004; Saito, 2009), or whether it should rather be seen as an instance of true optionality in syntax (Abe, 1993; Fukui, 1993; Tada, 1993; Ura, 1996; Saito and Fukui, 1998). Japanese also has the status of the prototypical discourse pro drop language, where null arguments are sanctioned by discourse conditions (Huang, 1984; Neeleman and Szendrői, 2007). Furthermore, the topic and so-called case particles in Japanese have been subject to much research, with Kuno (1975 in Webelhuth, 1992:204) noting that "the distinction among theme, contrast, exhaustive listing, and neutral description… and the distinction between predictable information and new, unpredictable information [--] play a decisive role in Japanese syntax…"; it can be asked whether the so-called case particles are, in fact,

[1] There are, of course, proposals of macrofamilies such as the Eurasiatic one (for example Greenberg, 2000, 2002), which would include both Finnish and Japanese; however, even if the hypothesis holds, the relation would be so distant as not to be relevant to a comparison of the modern varieties.

markers of case at all or rather something more pragmatically oriented (Fujii and Ono, 2000; Ono, Thompson and Suzuki, 2000; Lee, 2002; Shimojo, 2006; Hoye, 2017). A whole different research agenda is sparked by the language's sentence-final particles and how they encode speaker attitude (most recently, Saito and Haraguchi, 2012; Ogi, 2017).

The literature on Finnish is not nearly as vast, but here, too, relatively free word order is regularly cited as a core descriptive feature (Vilkuna, 1995), and its relation to the notions of focus, topicality and contrast as well as second position clitics is a topic of ongoing research (Holmberg and Nikanne, 2002; Kaiser, 2006; Huhmarniemi, 2012; Palomäki, 2016). It has been proposed in recent work (Frascarelli, 2007, 2014, 2018; Frascarelli and Jiménez-Fernández, 2015) that the partial pro drop phenomenon in Finnish can be productively cast as relating to topicality.

So, despite their geographical and genetic unrelatedness, Finnish and Japanese are typologically similar in several respects, manifesting topic prominence, discourse-sensitive word order variation, null arguments, and discourse-related particles in addition to agglutinative morphology. This makes them a perfect match both from a comparative perspective, and for my goals here: contributing to a more comprehensive understanding of how discourse, and especially the notions of speakers and addressees, can be syntactizised, and what kinds of cross-linguistic points of variation can be found here.

More specifically, my goals in this dissertation are twofold. First, from a language-specific perspective I aim to show that to wholly understand a variety of discourse-related phenomena – discourse particles, contrast, and different instances of nullness – the standard structures postulated for the two languages have to be reconsidered. The focus here will lie more on Finnish because of the larger gap in research as compared to Japanese. This feeds into a cross-linguistic, general theoretical perspective, where the central claim to be made is that the notions of speaker and addressee are syntactically relevant, and require additional Grounding and Response layers to be built onto the left (or, in the case of Japanese, right) periphery, in accordance with Wiltschko and Heim's (2016) Universal Spine Hypothesis (USH). Furthermore, evidence from various types of nullness will show the importance of approaching

certain syntactic phenomena from a scalar perspective. Comparatively speaking, I aim to show how similar pragmatic phenomena can be encoded differently, and also how different mechanisms can be used to achieve the same effect in the two languages.

The dissertation is structured as follows. Chapter 2 sets the work against a wider theoretical perspective and the recent rise of interest in discourse-related syntax. It gives an overview of how discourse participants have been conceptualized in formal syntactic terms, starting with Ross (1970). It will also motivate the analysis of speakers and addressees as part of the syntactic structure by discussing empirical phenomena where the presence of speech act participants is well established, including, for example, imperatives (Alcázar and Saltarelli, 2014), temporal relations (Giorgi, 2010), and evidentiality and logophoricity (Speas and Tenny, 2003; Tenny, 2006). The section concludes with the introduction of the framework to be used in the following chapters, Wiltschko and Heim's (2016) USH, which establishes an articulated speech act structure above CP, with GroundP and ResponseP projections.

Chapter 3 turns to discourse particles in Finnish and Japanese. The first third offers a review of the Finnish second position clitics *-hAn* and *-pA*[2] from a semantic-pragmatic perspective, collating the intuitions about their interpretations put forward in the existing literature. This forms the basis for a novel approach to the particles' meanings in terms of speakers and addressees as well as for a reconsideration of the traditionally sparse left periphery postulated for Finnish, instead opting for a more articulated USH-based approach.

The second third considers a selection of sentence-final discourse particles in Japanese – *yo, wa, ne,* and *na*. The starting point is Saito and Haraguchi's (2012) cartographic analysis of the particles, showing how they reflect a highly articulated structure in the right periphery. I then reconsider this with respect to Ogi's (2017) interactional approach, which takes the particles to fall into two categories, monopolistic and incorporative. These notions can be argued to reflect speech act participant-related structures. This is further corroborated by independent evidence

[2] The capital letter indicates that it is subject to vowel harmony.

for speaker- and addressee-related projections in Japanese syntax, based on Tenny's (2006) work on predicates of direct experience.

The final section in the chapter turns to self-talk, where original data for Finnish and Japanese show how the particles discussed above behave when the speaker is also the addressee. What emerges is observations as to how some addressee- and speaker-oriented phenomena can differ with respect to how they relate to an addressee that is also the self.

In chapter 4, I show that the speech act-related projections argued for in the previous chapter are crucially separate from a lower left- (or right-) peripheral structure hosting discourse phenomena relating to topics, focus, and contrast, for example. The key notion here is contrast, as it is assumed that it need not be encoded in the Grounding Layer in the same way as speaker- and addressee-oriented notions are; it also plays an important role in both Finnish and Japanese. Using Hooper and Thompson's (1973) typology of complement clauses and Haegeman and Endo's (forthcoming) approach to adverbial clauses, I show that contrast behaves differently from the Finnish and Japanese particles in several of these contexts, lending support to an important separation of the speech act domain and lower domains.

As additional independent evidence, I discuss the phenomenon of topic particle stranding in Japanese, based on work by Nasu (2012). It differs from other types of topicalization in Japanese in being clearly sensitive to the notions of speaker and addressee; interestingly, it patterns with sentence-final discourse particles and interjections rather than wholly spelled out *wa*-topics in terms of its distribution.

While the preceding chapters establish a distinction between information-structural notions in the C domain – contrast – and speaker- and addressee-related notions in the Grounding Layer, there is evidence that the structure above the C domain can be articulated still further: this is the topic of chapter 5. This idea is captured in Wiltschko and Heim's (2016) and Heim and Wiltschko's (2017) notion of Response Layer, which encodes what kind of a response the speaker is seeking from the addressee. Chapters 3 and 4 focus mainly on declaratives, but data on interrogatives reveal relevant interactions between different discourse-related components. In this

chapter, I discuss work on different types of Japanese questions and how these relate to politeness marking as well as introduce Wiltschko and Heim's proposal in more detail in this context. I then show how the Finnish particles interact with clause typing in interrogative contexts.

Chapter 6 moves away from particles and brings in a new perspective to the discussion of discourse-related phenomena in the two languages: different types of nullness. Conceptually, the discussion builds on work by Patel-Grosz (2018), showing how different languages use hierarchies of pronouns of different strengths for discourse-related purposes, among other things, and how the hierarchies show cross-linguistic variation in how they are split with respect to the phenomena. I will first discuss Finnish null subjects and possessive suffixes, showing how they form hierarchies with overt elements with respect to discourse notions such as topicality. Similar pragmatic effects can be achieved with Japanese zero case markers: a review of previous work shows that zero case markers form a hierarchy with wholly null arguments and wholly spelled out arguments with respect to information structure

The picture that emerges is one that shows how unlikely allies such as Finnish and Japanese can make a meaningful comparison that reveals unrelated yet intriguingly similar discourse-sensitive systems, where speakers, addressees, scalarity, and context-sensitivity play a more central role than has been universally acknowledged before.

Chapter 2 The road from Ross: theoretical background

2.1 Introduction

Something that linguistics as a science has struggled with is its own distinctions: can any contextual information be allowed into semantics, or is it all pragmatics? Is there anything to morphology, other than an awkward intersection between phonology and syntax? What is the status of general cognitive processes as opposed to – hypothetically – language-specific ones in shaping language typologies? What even *is* linguistics?

My aim is not to tackle the bigger philosophy of science questions, nor to produce a neatly delineated overview of the domains of linguistics; rather, the work here zooms in on the syntax-pragmatics interface, asking in what ways speakers and addressees can, and should, be represented syntactically. As Hill (2014) notes, the last quarter of the 20th century and the early 21st century have seen generative grammar broaden its understanding of grammar proper to pragmatic categories. This broadening has enabled new levels of discussions of phenomena that would have previously been cast outside the domain of core syntax – vocatives, parentheticals, particles orienting to the discourse participants, indexical shift, logophoricity, and grammaticalized adverbs, to mention but a few. For Chomsky (1981), for example, such phenomena are located in the periphery of marked elements and constructions, rather than in the core grammar, a result of Universal Grammar-driven parameter fixing in the theorizing of the time.

The meanings discussed in this context tend to fall in the realm of what Potts (2007) defines as expressive. Expressives contribute a dimension of meaning to the utterance that is separate from the regular propositional content,[3] and the expressive content is

[3] The distinction between expressive and propositional meaning is not, however, always clear: Potts mentions as borderline cases evidentials and the German discourse particle *ja*, for example. Gutzmann (2015), in turn, discusses how truth-conditional and use-conditional content interact with different discourse components, such as common ground and the question under discussion. Consider the distinction between (i) and (ii):

evaluated from a particular perspective, often the speaker's. As such, they tend not to be included within the scope of truth-conditional meaning and are instead taken to be notions belonging to pragmatics.[4] Given this, some linguists will argue that anything not clearly propositional should not be syntactically encoded: Horvath's (2010:1349) Strong Modularity Hypothesis for Discourse Features, for instance, holds that "[n]o information structure notions – i.e., purely discourse-related notions – can be encoded in the grammar as formal features; hence no "discourse-related features" are present in the syntactic derivation. They are available only outside the C_{HL}."

Without going into the extensive conceptual and meta-theoretical debates surrounding the issue, I agree with Zu (2015) in arguing that an element's expressive power should not disqualify it from being syntactically relevant; rather, as this chapter, and the whole dissertation *aims* to show, there is plenty of empirical evidence for expressive content being syntactically represented, which – in good scientific practice at least – should trump conceptual stipulations.[5] In any case, drawing a syntactic line between

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(i) a. That bastard Pete is a supporter of animal rights.

b. That philosopher Pete is a clever guy.

(ii) a. Pete is a bastard and a clever guy.

b. Pete is a philosopher and a clever guy.

(from *ibid*.:287)

In (i), *bastard* is a use-conditional expression (an expressive, in Pott's terminology), and *philosopher* a truth-conditional, or descriptive, one; yet both express a side issue here. In (ii), in contrast, they both express at-issue meaning; examples such as these blur the lines between the two categories. Where the exact boundaries of these categories lie is inconsequential to the discussion here, however.

[4] However, there are multiple problems – a huge understatement, given how much semantics/ pragmatics research tries to tackle the issues – in delineating semantics and pragmatics with respect to truth-conditional import (see, for example, Recanati (2005) and Jaszczolt (2012) for an overview of the debates). Therefore, it is less than clear how a semantics versus pragmatics divide could provide a firm conceptual foundation to any theory of syntax, or even a broad theoretical guideline to what to encode syntactically.

[5] There is also important discussion on how to distinguish between formally encoded expressive meanings and those that come from other sources: see, for example, Biberauer (2018) on expressive

descriptive and expressive content is a matter of multiple shades of grey rather than black and white.[6] Take (1) from Japanese, for example:

(1) Nesugoshi-chimat-ta.
overslept -ANTIHON-PST
Descriptive content: "I overslept."
Expressive content: "It sucks that I overslept."
(from Potts and Kawahara, 2004 cited in Potts, 2007:168)

Here, the antihonorific *-chimau* takes as its semantic argument the proposition that the speaker overslept, thus reaching into the descriptive domain: that is, even if expressives cannot change the propositional content, the two types of meaning interact (Potts, 2007). Furthermore, the expressive meaning is represented as an agglutinating morpheme on the verb, just as the uncontroversially descriptive past tense is. Why, then, relevant aspects of the meaning contained in *-chimau* should be any less syntactic in principle remains unclear to say the least. Of course, it does not follow automatically that the specific expressive meaning of *-chimau* is syntactically encoded; rather it is likely to have more of an underspecified meaning that gains greater specificity through combining compositionally with its surrounding structure, as will be discussed below with respect to Wiltschko and Heim's (2016) proposal.

One framework that has led the way in grammaticalizing pragmatics and laying the groundwork for more inclusive clause structures is the cartographic approach (Rizzi, 1997; Cinque, 1999), where notions such as topics, focus, and evidentiality are encoded on top of the more traditional morphological and semantic categories (Hill,

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elements that are intergrated into the grammar to varying degrees (such as English *man* and *damn* triggering V2 ("Man is that annyoing!") vs. *man* and *damn* that do not).

[6] Another interesting question is how expressive and propositional content might differ in their psychological representations. Jay (2000) discusses several cases where patients with severe damage to the left hemisphere of the brain are still able to curse, while not being able to produce so-called normal speech. Jay argues that this type of expressive language is lateralized in the brain's right hemisphere. This is not to say, though, that linguistic expressions of the speaker's emotional state are fundamentally different from other types of expressions: Corver (2014), for example, shows that complex curse expressions in Dutch have a clearly cognitive, computational basis that manifests recursion, a key property of human language.

2014). However, there is an increasingly growing body of evidence showing that even more needs to be allowed into the syntax: representations of speech act participants. The focus of this dissertation is precisely the encoding of speakers and addressees in the syntax, and it is very much not alone in arguing for this mapping: the same has been acknowledged in work in both cartographic and minimalist perspectives, as well as the Head Driven Phrase Structure Grammar framework, where Conversational Move Types are integrated into the syntactic representation, including conversational pragmatics (Ginzburg, Sag and Purver, 2001 cited in Hill, 2014:30).

Despite the relatively recent flourishing of work on speech act syntax, its roots go much further back. I will first go back to what is largely considered the conceptual beginnings of the modern approaches, i.e. Ross's (1970) Performative Hypothesis. I will then consider a selection of more recent empirical evidence for the syntactic representation of speech act participants, before turning to theoretical and conceptual considerations of their encoding. The chapter ends with an introduction of the framework adopted here, Wiltschko and Heim's (2016) Universal Spine Hypothesis.

2.2 The Performative Hypothesis – an insight ahead of its times?

Many syntactic works on pragmatic phenomena cite as their ultimate conceptual starting point Ross's (1970) Performative Hypothesis. The approach postulating a silent performative structure for all sentences has come to be taken as something of a piece of genius before its time – an initially misunderstood and much reviled proposal that, nearly half a century on, is proving to have predicted some of the trends in modern generative grammar.

The Performative Hypothesis builds on Austin's (1962) distinction between constative and performative sentences:

(2) a. Prices slumped.

b. I promise you that I won't squeal.

(from *ibid*.:222)

(2b) is a performative sentence: the mere action of uttering the sentence constitutes a promise, and this is so even if the speaker has every intention to squeal. The uttering of the constative (2a), on the other hand, does not constitute a slump in prices.

Not all performatives, though, have an explicit performative structure. This holds, for example, with respect to imperatives. Austin proposes that both sentences in (3) are performative:

(3) a. I order you to go.

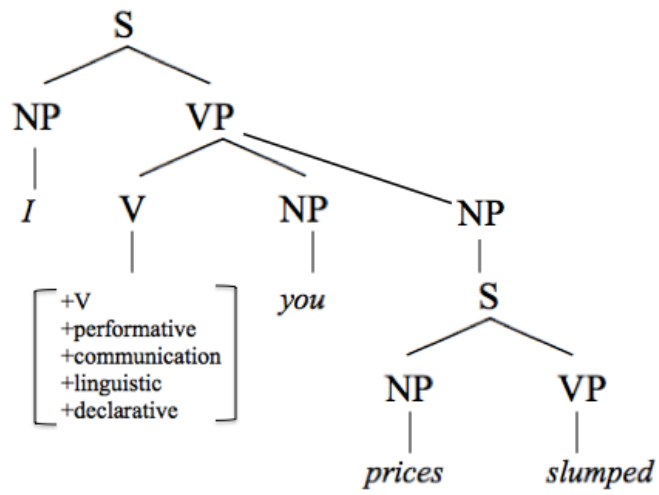
b. Go!

(from Ross, 1970:223)

The two sentences differ only in that in (3a) the performative verb is explicit, while in (3b) it is implicit. This intuition tallies with earlier work in transformational grammar, where sentences like (3b) with an understood second person subject were taken to have an underlying structure with an NP *you* as their subject (see Chomsky, 1957, 1965).

Ross's Performative Hypothesis takes a step further, postulating an implicit performative structure for apparently constative sentences as well. The underlying structure for a sentence such as (2a) is illustrated in (4), where the explicit part of the sentence is underlyingly in fact an embedded clause under a performative structure:

(4)



(from *ibid*.:224)

The performative structure is then deleted given a rule of performative deletion.

Ross provides a range of phenomena as evidence for the Performative Hypothesis. To support the presence of a higher silent *I*, for example, he refers to the grammaticality pattern in (5):

(5) a. Glinda knows that as for herself, she won't be invited.

b. * Harry believes that the students know that Glinda has been saying that as for herself/*himself, she/*he won't be invited.

c. As for myself, I won't be invited.

(from *ibid*.:231-232)

(5a) shows that an *as for*-phrase can contain a reflexive when it has a suitable antecedent, and (5b) shows that this antecedent must be the subject of the next higher phrase – this is why *herself* referring to *Glinda*, but not *himself* referring to *Harry*, is grammatical in (5b). Crucially, a first person reflexive is allowed even in the absence of an overt matrix clause: the underlying structure in (4) provides a suitable antecedent for the reflexive in the form of the implicit *I* in the performative matrix clause.

One piece of evidence for the presence of a verb of communication like *say* in the performative structure comes from Arabic. Arabic has three distinct complementizers, the distribution of which is determined by the matrix verb: *ʔan* is used after verbs denoting commands, requests, or expectations, *ʔinna* is used only after *ʔaquulu* 'say', and *ʔanna* occurs after all other verbs. Importantly to the Performative Hypothesis, *ʔinna* also occurs optionally at the start of unembedded declarative sentences, as in (6):[7]

(6) ʔinna lwalada qad taraka lbayta.
that boy PST leave house
"The boy left the house."

(from *ibid*.:245)

Ross's final set of evidence is meant to support the presence of a silent *you*. Occurring in an embedded context, the subject of subjective predicates such as *be tired*, *be bored*, and *love*, for example, cannot be identical to the indirect object in the matrix clause:

(7) I told Mr. Feuerstein$_i$ that I/you/*he$_i$ felt tired.

(from *ibid*.:247)

[7] Further support comes from the many other languages with matrix illocutionary markers. Ibero-Romance *que*, for example, can be used to mark exclamation and quotation and to contextualize the preceding utterance, in addition to its subordinating function (Corr, 2016). Example (i) illustrates its quotative use:

(i) A: Tio, estava dubtant i això.
'Mate, I wasn't sure n' stuff.'

B: Eh?
'Eh?'

A: Que no ho tenia molt clar tampoc.
QUOT not it=have.IMPF.1SG very clear either
"[I said] I wasn't very sure either."

(from *ibid*.:2)

A second person subject with these verbs in matrix declarative clauses also results in unacceptability:

(8) # You feel tired/bored/jaded.

(from *ibid*.:247)

As a caveat, it should be noted that the unacceptability here is subject to the context of use. (8) can be used, for instance, in a context where the speaker is hypothesizing about how the addressee is feeling ('You feel bored, don't you?'). According to Ross – in the contexts where the sentence is actually unacceptable – the unacceptability of (8) is captured if there is a silent *you* in the underlying structure of the sentence: again, this makes the matrix clause in (8) parallel to the embedded clause in (7), so that the unacceptability can be accounted for based on banning a linking of the overt subject and a silent higher antecedent in the relevant contexts.

However, the Performative Hypothesis, or more specifically Ross's original implementation of it, has come under much criticism. Levinson (1982 cited in Hill, 2014:29) notes that the hypothesis predicts that the two sentences in (9) should have the same interpretation, given that (9b) has exactly the same structure, albeit covert, as (9a):

(9) a. I state to you that the world is flat.

b. The world is flat.

(from *ibid*.:29)

However, the truth conditions are clearly distinct: (9a) can be true even if the world is not flat, as its truth depends solely on whether or not the speaker states that the world is flat, whereas the truth of (9b) is solely contingent on the flatness of the world in the real world. This hinges on the assumption of overt and covert elements being interpretively equivalent, though. Later work has shown, however, that overt and covert elements tend to be structurally distinct, and this difference has also interpretative consequences; see chapter 6, for example, on how nullness can be interpretatively significant.

Another problem is presented by (10):

(10) The company hereby undertakes to indemnify all genuine errors.
(from *ibid*.:29)

The interpretation is performative, enabling the presence of the adverb *hereby*, but the speaker is not represented in the utterance. Crucially, not all performative verbs have first person subjects and second person objects, as Ross's performative structure would necessitate.

Furthermore, it is well established that there is no one-to-one mapping between utterances and types of speech act, as Ross's analysis assumes.

However, the empirical and theoretical problems that Ross raises are "real and cross-linguistically pervasive" (Hill, 2014:29), and later work has highlighted a growing body of evidence for encoding speech act-related information in the syntax. Modern approaches have largely abandoned the bi-clausal structure proposed by Ross, and tend to opt for mono-clausal structures, with the speaker and addressee built within or on top of the CP as an additional layer. The empirical evidence and the modern theoretical instantiations of Ross's original idea are the topics to which I turn next.

2.3 It's all in the data: empirical evidence

The conceptual debate whether or not pragmatic information should be encoded in the syntax is overshadowed by a growing body of empirical evidence that increasingly supports the syntactic reality of speakers and addressees. Alcázar and Saltarelli (2014) go as far as to argue that the breadth of evidence is enough to make the postulation of a syntax-pragmatics interface a conceptual necessity and therefore in keeping with the Strong Minimalist Thesis (SMT). I will not delve into theory-internal debates here of how the evidence relates to the SMT, or any other conceptual guidelines; what is clear, though, from a more practical perspective is that the growth in the number of recent empirical findings is enough to make any comprehensive overview of them a task well beyond the space and scope of this chapter. So, I will narrow the discussion

here to indexical shifts, Double Access Readings and imperatives, speaker and addressee agreement, vocative structures, evidentiality, and conjunct-disjunct systems.

Indexical shift is a phenomenon that was initially predicted not to exist. Kaplan (1979 cited in Alcázar and Saltarelli, 2014:77) argues that natural language cannot have an operator that can overwrite context indexes, i.e. all indexicals must be interpreted relative to the context of utterance. The hypothetical operator that could do so is dubbed – tellingly – a monster. There is, however, substantial evidence for the existence of Kaplan's monsters, notably in the form of indexical shift (Alcázar and Saltarelli, 2014): while the cross-linguistic distribution of indexical shift has not been wholly determined, it is clear that it is geographically widespread, including Tamil, Korean, Laz, Nez Perce, and Navajo (Deal, 2017), to mention but a few languages, and it is not modality-dependent, either, as it occurs in sign language as well. Languages that manifest the phenomenon vary in its exact implementation, but all indexical shift systems share, first, the fact that the interpretation of the relevant indexicals is ambiguous with respect to whether they are interpreted with respect to the utterance or the reported context, and second, their syntactic domain, which is the complement of certain propositional attitude verbs.

As an illustration, consider the case of Navajo, as observed by Schlenker (1999, 2003 cited in Alcázar and Saltarelli, 2014:78):

(11) Jáan chidí nahá<u>I</u>nii' ní.
Jáan car 3SG.OBJ.PRF.1SG.SUBJ.buy 3.say
"Jáan$_i$ says he$_i$ bought a car." or "Jáan says I (the speaker) bought a car." (Lit. "Jáan says I bought a car.")

(adapted from *ibid.*:78)

The example is ambiguous between direct and indirect discourse readings, i.e. the first person can refer to the speaker of the utterance context, or shift and refer to *Jáan* instead. Crucially, in both cases the construction represents indirect discourse, and the reading where the first person refers to *Jáan* cannot be accounted for as a case of direct discourse. This shows a parallel between the matrix subject *Jáan* and the

speaker in how they can function as the antecedent for the pronoun, hence supporting the syntactic realization of the speaker parallel to that of *Jáan*.[8]

Giorgi (2010), in turn, argues for the necessity of representing the speaker's coordinates – their temporal and spatial location – in the left periphery based on evidence from the so-called Double Access Reading (DAR). Consider (12a) from English and its Italian equivalent in (12b):

(12) a. John said that Mary is pregnant.

b. Gianni ha detto che Maria è incinta.
Gianni has said that Maria is pregnant
"Gianni said that Maria is pregnant."

(adapted from *ibid*.:13)

In both cases, Mary has to be pregnant both when John said so and when the sentence is uttered: the examples could not be uttered two years after John reporting the pregnancy, for example. For the condition that Mary is pregnant at the time of uttering the sentence to hold, the speaker's temporal location has to be specified. Of course, this could just be a conceptual necessity, arising from general cognitive processes and hence not necessarily syntactically represented. However, cross-linguistic variation shows that this is not the case: in languages such as Romanian and Chinese, the pregnancy does not necessarily have to extend to the present moment. Giorgi classifies the first type of languages as DAR languages, where the embedded eventuality is doubly evaluated, and the latter as non-DAR languages, where the embedded eventuality is temporally located only with respect to the main event, i.e. John speaking.

It should be noted that the third logical option where the complement clause has the same range of interpretations it has in isolation is not attested: that is, the embedded eventuality has to be temporally anchored with respect to the matrix clause.

[8] Of course, a satisfactory description requires an account of how intervention effects are managed, but that would sidetrack the discussion here.

According to Giorgi and Pianesi (2001a, 2004a cited in *ibid*.:17), the non-attested option would amount to making the expressed content a property of the speaker alone, where in reality the speaker must share it with the subject of the matrix clause.

To sum up, key to capturing the difference between the two types of languages is that in DAR languages the eventuality embedded in a complement clause must be evaluated twice, once with respect to the subject's, i.e. the attitude bearer's, temporal coordinate, and once with respect to the speaker's temporal coordinate. In non-DAR languages, on the other hand, only the first evaluation takes place. As was the case with indexical shift, drawing this distinction requires a syntactic representation of the speaker. Giorgi takes the syntactic item that is responsible for the interpretation of the embedded verbal form with respect to utterance time to be located in the C layer. This finds support in the differing behaviour of indicative and subjunctive clauses. In contrast to indicatives, in subjunctive complement clauses the tense of the embedded verb depends on the tense of the superordinate one: present under present and past under past. The temporal interpretation assigned to the embedded event is thus simultaneity with the main predicate. Now, in many languages indicative and subjunctive clauses are introduced by different complementizers; Rizzi (1997), for instance, assumes that the Italian indicative complementizer *che* is in Force, while the subjunctive *di* is located in Fin. Giorgi argues that at the interface, the indicative complementizer is read as an instruction to evaluate the embedded content with respect to the speaker's temporal coordinate, while in the subjunctive, the complementizer does not provide the same information.

I will not go into the full technical detail of Giorgi's proposal here, but the empirical observations support the bigger picture of the syntax of speech acts argued for here. Furthermore, Giorgi's discussion on the differences between indicative and subjunctive clauses tallies with literature on the size of complementizers, where indicative complementizers are argued to be bigger, i.e. more specific than subjunctive ones (Baunaz, 2015). Baunaz, for example, shows that the complementizer *que* 'that' in French can have a more or less specific feature structure depending on the veridicality of its selecting environment; instead of a single *que*, there are in fact three homonymous complementizers with different feature structures. French predicates, according to Baunaz, can be divided into three categories based on

their veridicality: strong veridical predicates, such as *comprendre* 'understand' and *se rappeller* 'remember' require their embedded proposition to be true from the point of view of both the speaker and the subject. With relative veridical predicates such as *regretter* 'regret' the proposition needs to be true from the point of view of the subject, but not necessarily the speaker. Finally, non-veridical predicates, such as *dire* 'say' and *préférer* 'prefer', do not embed a proposition the truth of which needs to be inferred either by the subject or the speaker.

Crucially, clauses embedded under these predicate types differ with respect to their extraction options. Clauses embedded under strong veridical predicates are strong islands and do not allow any extraction (13a), while those embedded under relative veridical predicates allow the extraction of only *quel N* 'which N' arguments (13b), i.e. they are weak islands, and non-veridical predicates show no island effects (13c):

(13) a. ??/* Quelle photo est-ce que Jean se rappelle que Jules prend?
which picture does Jean remember that Jules takes-IND
"Which picture does John remember that Jules takes?"

b. Quel tournoi est-ce que Paul regrette que Roger ait vendu?
which tournament does Paul regret that Roger has-SBJV sold
"Which tournament does Paul regret that Roger sold?"

c. Comment est-ce que Paul dit que Roger a gagné le tournoi?
how does Paul say that Roger has-IND won the tournament
"How does Paul say that Roger won the tournament?"
(from *ibid.*:198-200)

Baunaz argues that this distribution of island effects follows from the feature structure of the types of *que* selected by the different types of predicates. Without going into detail of the features involved, strong veridical predicates select the most featurally specified, i.e. biggest, type of *que*, relative veridical predicates a less specified one, and non-veridical predicates the smallest *que*. Based on Relativized Minimality, it follows that the least specified *que* allows the most extraction options, with the more specific ones causing more intervention effects.

Importantly to Giorgi's discussion, strong veridical predicates, i.e. the ones with the most specific *que*, take an indicative verb in the embedded clause, while relative veridical predicates take the subjunctive: there is thus a correlation with indicative complementizers being bigger and subjunctive ones smaller. The correlation is not absolute, however, as both the indicative and subjunctive can occur under non-veridical predicates, so that mood is not an absolute correlate of the size of the complementizer. Baunaz's fidnings do, however, corroborate Giorgi's observations regarding the differences in the temporal dependence of subjunctive and indicative clauses.

The syntactic representation of the temporal location of the speaker finds further support in Alcázar and Saltarelli's (2014) work on imperatives; given that the imperative is a universal clause type, this type of evidence is particularly significant. Alcázar and Saltarelli argue – mirroring Austin's ideas about imperatives – for a performative structure of sorts. The contextual meaning of an imperative clause is characterized as a prescription, and can be informally represented as [Speaker$_i$ "prescribes" at time t_i [Addressee to DO P]]. A functional *v* mediates the thematic role dynamics between the speaker of the imperative expression and its addressee at the context-syntax interface. While the addressee thematic role is assigned to the grammatical subject argument of V, the speaker is located higher up in the structure. That encoding the speaker syntactically is crucial is supported by how the temporality of an imperative is constrained to future orientation:

(14) a. Buy a Fiat now/ tomorrow/ *yesterday!

b. I order you to buy a Fiat now/ tomorrow/ *yesterday!

c. You should buy a Fiat now/ tomorrow/ *yesterday!

(from *ibid*.:106)

The restriction follows naturally from the above analysis: under the speaker's time orientation, present and future, but not past, imperative events are licensed at the function-context interface. This, crucially, necessitates encoding the speaker in a high functional phase, in Alcázar and Saltarelli's analysis, the CP.

The phenomena discussed so far have focused on the presence of a syntactically represented speaker argument. However, most approaches allow for the encoding of both a speaker and an addressee. A case that illustrates the need for this particularly clearly is that of Jingpo, a Tibeto-Burmese language with both speaker and addressee agreement, as discussed by Zu (2013).

The relevant agreements occur on the language's sentence-final particles, which are divided into two components. The final component – typically the last syllable, or the rhyme of the particle's last syllable – encodes clause type information, while the pre-final component bears agreement morphemes, optionally encoding grammatical functions such as aspectuality, the path of movement, information relating to requests, promises, or suggestions, as well as subject, possessor, and object agreement.[9]

Allocutive, or addressee agreement, on the sentence-final particle is illustrated in the set of examples in (15):

(15) a. hkying gɑde htu s-ǎʔ-tâ?
time how.many point COS-3SG.GOAL1-Q
"What time is it?" (Lit. "How many does the time point to)?

b. hkying gɑde htu s-ə̌-tâ?
time how.many point COS-2SG.GOAL1-Q
"What time is it?"

c. hkying gɑde htu mə̌-s-ín-tâ?
time how.many point PL-COS-2SG.GOAL1.Q
"What time is it?"

(from Dai, 2010 cited in *ibid*.:3)

[9] For theoretical reasons I will not go into here, Zu dubs subject agreement *first specifier agreement* and possessor agreement *second specifier agreement*. This builds on van Koppen's (2005 cited in *ibid*:2.) agreement configuration, where one probe encounters two goals for agreement; the two agreement paradigms thus mirror structural differences in the agreement relations. This is reflected in the glosses as 'Goal 1' for subject and 'Goal 2' for possessor agreement.

In (15a), the sentence-final particle agrees with the third person singular subject *hkying* 'time', and it is not clear whether there is an addressee in the context. In (15b) and (15c), on the other hand, the sentence-final particle shows second person agreement in the singular and plural, respectively.[10] There is no second person pronoun specified in the sentence with which the verb would agree, this being a case of allocutive agreement instead. This is further supported by the fact that (15b) and (15c) are infelicitous in cases where the speaker is just murmuring the question to themselves. The plural morpheme *mə̃-* in (15c) furthermore indicates that the question is addressed to a group of people, and the speaker expects multiple answers from them. As such, the function of addressee agreement here is attention seeking. Importantly, only one type of agreement is allowed at any one time, i.e. in (15a) the sentence-final particle agrees only with the subject, and in (15b) and (15c) it agrees only with the addressee. Unlike in Basque and other languages, in Jingpo allocutive agreement is limited to questions.

Speaker agreement, on the other hand, is compatible with other clause types, including declaratives, exhortatives, questions, exclamatives, and speculatives. Consider (16):

(16) a. jongmɑ du hkum mə-s-āi
student arrive complete 3PL.GOAL1-COS.DECL

[10] In agreeing in person and number, the allocutive agreement in Jingpo differs from the allocutive agreement systems in various Basque dialects, Beja, Chechen, Mandan, and Nambikuara. In the latter languages, the verb inflects for the gender of the non-argumental addressee to express familiarity or politeness; Lakhota and Burmese, on the other hand, have speaker agreement that also encodes the gender of the speaker. This serves to show that there is no one blueprint for allocutive agreement, other than that it is agreement with the addressee. Antonov (2013), for example, describes the Indo-European ethical dative as an instance of allocutivity, albeit not a wholly grammaticalized one. This may also have been a source for the allocutive agreement in Basque (Alberdi, 1995 cited in *ibid*.:2). In addition, the polite speech style in Japanese, signalled by the politeness marker *-mas-* as well as the speech style particles in Korean are defined as instances of allocutivity (Antonov, 2013; Miyagawa, 2012).

b. jongmɑ du hkum sə̋-kə̋ʔ-ai
student arrive complete COS-1PL.GOAL1-DECL
"The students have all arrived."

(from Dai, 2010 cited in *ibid*.:4)

In (16a), the sentence-final particle shows third person plural agreement with the subject *jongma* 'students', while in (16b) it takes first person plural agreement. Agreement with the speaker is always plural: according to Zu, the plurality requirement is not the result of a syntactic mechanism but rather arises from the function of speaker agreement, bonding. While (16a) and (16b) are truth-conditionally equivalent, speaker agreement establishes an intimate relation between the speaker and the subject. As such, if the sentences in (16) are spoken by a teacher, (16b) indicates that the teacher and students are on good terms, while (16a) has no such implication. This is comparable to the so-called English 'nurse-we' construction, establishing an intimate relationship between the speaker and the subject:

(17) Nurse to single patient:
a. Are we feeling better today?
b. # Am I feeling better today?

(from Collins and Postal, 2012 cited in *ibid*.:8)

That speaker and addressee agreements in Jingpo are instances of authentic agreement is supported, first, by the fact that they are spelled out in the same way as subject agreement morphemes are, and second, by the fact that they compete for morphological realization with subject agreement. Given this, these agreements must have probes, which leads Zu to argue that the notions of speaker and addressee must be syntactically represented, taken to be projections on top of CP. The competition with subject agreement is achieved by assuming that the speaker and addressee features percolate down to T via obligatory feature inheritance. T's ϕ-features can be then checked by the speaker, addressee, or subject, and all of these are treated equally in narrow syntax. In this model as well, then, speaker and addressee play an important syntactic role.

The importance of encoding both the speaker and addressee is also evident from Hill's (2007) discussion of particles of indirect and direct address. Particles of indirect address convey the speaker's state of mind and their perspective on the event or state in the context; they are roughly equivalent to English 'oh', as in 'oh, my, what am I going to do!' conveying the speaker's distress. Particles of direct address, in contrast, have no equivalent in English, but function approximately like *you* in 'You John come here!'.

Both types of particles differ from interjections in showing sensitivity to syntactic factors, instead of only pragmatic ones. Consider the Romanian data in (18):

(18) a. (Măi/vai), zice că (*măi/*vai) ar vrea să cumpere casa.
you/oh says that you/ oh would want SBJV buy house-the
"Hey man, he said he would like to buy the house."

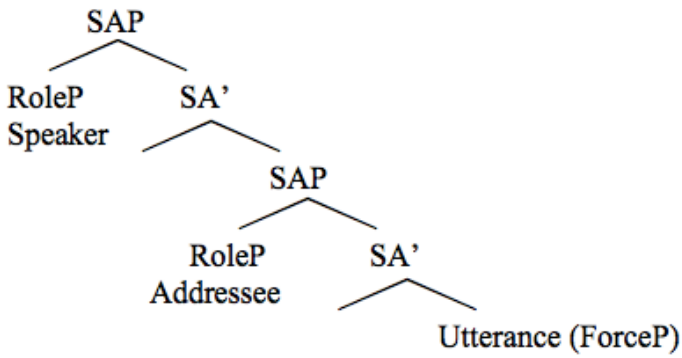
b. (Mda) Măi/vai (*mda) Ioane, unde te duci?
INT you/oh INT Ion-VOC where REFL go-2SG
"Hm, John, man, where do you go?"

(from *ibid.*:2083)

First, particles of address cannot occur in embedded contexts, as shown by (18a): the restriction to root clauses signals syntactic sensitivity. Second, within root clauses, multiple interjections allow for free ordering in relation to both each other and neighbouring constituents, while forms of address are obligatorily adjacent to their associated vocative noun, and no interjection may intervene between the two, as is apparent from (18b). Hill takes these distribution and adjacency restrictions to serve as evidence for the syntactic status of the particles, in contrast to interjections.

Given the pragmatic values that the particles encode – the speaker's point of view in the case of indirect address and addressee identification in the case of direct address –, they are intuitively described as role markers for the speaker and addressee. Syntactically, Hill takes the particles to be heads that project RolePs, which are located in a Speech Act layer above ForceP. The structure is illustrated in (19):

(19)



(adapted from *ibid*.:2099)

Hill takes the ordering of the speaker and addressee RolePs, with the speaker higher in the structure than the addressee, to be universal. One piece of supporting evidence comes from the distribution of other speech act heads with respect to the role markers. For example, the Romanian, speech act head *hai* (as well as parallel markers in Bulgarian and Umbundu) cannot precede the indirect address RoleP but it can precede the direct address RoleP as well as the rest of the utterance:

(20) (*hai) Vai, (hai) măi (Ioane), (hai) că nu te crede nimeni!
hai oh *hai* you Ion *hai* that not you believes nobody
"My god, Ion, give it up, nobody believes you!"

(from *ibid*:2099)

It should be noted, however, that this may not always be the surface order. For Hill, when forms of address are uttered, breaks, emphasis, demarcating topics and other stylistically motivated changes in intonation can occur. These may induce the inversion of constituents in SAP, or make CP constituents intervene between or precede SAP constituents. However, it remains unclear whether this ordering of speaker and addressee really is universal: Wiltschko and Heim (2016), for example, order the addressee above the speaker, while Thoma (2014) argues that there is no prior conceptual reason for a particular ordering. Indeed, Hill does not provide any conceptual or empirical evidence beyond the speech act particle data to support the claim, so I will not assume a strict ordering of the speech act participants for now; rather, I will leave their ordering open to empirical enquiry, to which I return in chapter 3 with respect to Finnish.

Finally, Hill's proposed SA structure – which many of the other works discussed here adopt more or less directly – accounts for the restriction against forms of address in non-root contexts. This follows as the SA projection would interfere with the embedding of ForceP.

Akkuş and Hill (2017, 2018) discuss a related phenomenon, inverse vocatives. While standard vocatives only spell out the addressee, there is nothing equivalent for the speaker. Inverse vocatives, on the other hand, spell out both participants. Consider the examples in (21) from Turkish:

(21) a. An elder brother addresses his younger female sibling:
Abi-si, ayakkabılar-ım-ı getir-im-mi-sin?
brother-3SG.POSS shoes-1SG.POSS-ACC fetch.AOR-Q-2SG
"[Her] brother, can you fetch my shoes?"

b. A patient addresses their doctor:
Peki, sana ne de-meli, doktor-cuğ-u?
well you-DAT what say-should doctor-DIM-3SG.POSS
"Well, [his/her] doctor, what about you?
(from Akkuş and Hill,2017:50)

Here, the DP and possessive ending alternate with respect to their association with the participant roles. In (21a) in *abi-si*, *abi* 'brother' refers to the speaker, while the possessive suffix *-si* refers to the addressee. In (21b), on the other hand, in *doktor-cuğ-u*, the noun *doktor* refers to the addressee, while the possessive suffix *-u* refers to the speaker. The inverse vocative involves a sense of affection. In addition, for some speakers, the ordering of the speaker and addressee features can carry pragmatic implications: here, speaker > addressee (as in (21a)) conveys social authority of the speaker over the addressee, while addressee > speaker (as in (21b)) conveys only endearment. Inverse vocatives therefore differ from regular vocatives, i.e. where the speaker is not spelled out, in that they are always marked for an emotional relation between the speaker and addressee.

The implication of affection is key to the syntactic analysis of the inverse vocative structures: they are taken to arise when an [affect] feature is mapped onto the syntax of address. Furthermore, [affect] is associated with the possessive element. Crucially, the possessive functions differently in these structures as compared to its standard use. First, it is stripped off its possessive feature (Akkuş and Hill, 2018), and does not indicate possession or social belonging, but only a discourse participant. Second, it does not agree in person with the possessor: as is evident from (21a) and (21b), it takes the third person singular form in both cases. It is also invariable for number values, unlike when it attaches to neutral DPs. Finally, it merges outside the phrasal structure and not inside VocP. This is supported by (22):

(22) dayı ve amca-sı
maternal uncle and paternal uncle-3SG.POSS
"her/his maternal and paternal uncles"

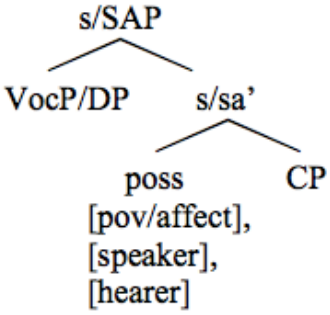
(from Akkuş and Hill, 2017:54)

Here, the possessive enclitic attaches to the coordinated structure, and not individually on each constituent noun. The coordinated nouns are assumed to be merged into a coordinated phrase, and when the nouns denote addressees, they are necessarily VocPs, meaning that the coordinated phrase has two VocPs; if the enclicitc was inside the VocP, it would attach to each noun separately. Instead, Akkuş and Hill take it to merge to the phrase hosting the speaker in the SA layer.[11]

From here, the [affect] feature associated to the possessive then spells out the speaker's point of view concerning their feelings towards the addressee. To account for the option of inverting the participant roles, Akkuş and Hill argue that either the noun or possessive may check the speaker or addressee role in a local configuration. This follows if the participant role features are bundled into one set associated with a single head when affectivity is involved. The structure is given in (23):

[11] In their terminology, the phrase is saP, which corresponds to the higher SAP in Hill's (2007) structure in (19). The structures are fundamentally the same, despite these terminological differences.

(23)



(from *ibid*.:56)

The noun and possessive are separate items merged separately into the structure to check different features, but when the point of view is valued as [affect], it triggers a collapsing of the s/SAP hierarchy, giving rise to inverse vocatives. As such, as Akkuş and Hill (2018) note, inverse vocatives are not vocatives per se, as they do not arise within VocP, as shown above, and they are supported by obligatory performative affectation that does not apply to regular vocatives. A question that arises is whether there is independent evidence for the [affect] feature other than it triggering the rather stipulative collapsing of the s/SAP hierarchy. Whatever the final destiny of [affect], or the status of inverse vocatives with respect to so-called standard vocatives, these structures offer, descriptively at least, additional evidence for the encoding of both speaker and addressee.

This is not to say that all relevant speech act-related phenomena are analyzable in terms of just speaker and addressee projections. This is reflected formally in the work by Tenny (2006) on evidentials – building on Speas and Tenny (2003) and Speas (2004) – who argues for a Grammar of Sentience, constituted by Speech Act and Evidentiality (or Sentience) projections. The idea of speakers and addressees being syntactically represented is closely tied to the notion of evidentiality. This is not surprising given the conceptual closeness of speech act-related information and evidentiality: the latter relates information to the participants of the speech situation, encoding perceptual or cognitive experience (San Roque, Floyd and Norcliffe, 2017). This perspectivizing quality of evidentials is illustrated in (24) from Duna (Trans-New Guinea), where the evidential *-yarua* indicates a non-visual sensory information source:

(24) A: ko roro-yarua=pe
2SG hot-SENS=Q
"Are you hot (you feel)?"

B: no roro-yarua
1SG hot-SENSE
"I am hot (I feel)."

(from *ibid*.:121)

The empirical base of Tenny's (2006) argument lies with certain predicates of direct experience in Japanese and the observation of how they obey a person restriction. Crucially, the subject of stative predicates of basic sensation and experience is restricted to the first person in declaratives and to the second person in interrogatives, as illustrated in (25a) and (25b), respectively:

(25) a. Watashi/ *anata/ *kare wa samui desu.
I you he TOP cold COP
"I am cold./ *You are cold./ *He is cold."

b. *Watashi/ anata/ *kare wa samui desu ka?
I you he TOP cold COP Q
"*Am I cold?/ Are you cold?/ *Is he cold?"

(from *ibid*.:247)

Other predicates subject to the person restriction include *kanashii* 'sad', *natsukashii* 'remember with nostalgia', *nikurashii* 'hate', *urayamashii* 'envious', and *ureshii* 'delighted', among others (Fujii, 2007).[12]

[12] Fujii (2007) shows that when predicates of direct experience occur in the complements of verbs like *say*, *think* or *ask*, the understood subject must be bound by the matrix subject or object:

(i) a. Taro$_i$ wa Atsuko$_j$ ni [$\varnothing_{i/*j}$ watashi no tomodachi ga nikurashii to] itta.
Taro TOP Atsuko DAT I GEN friend NOM hate-PRS COMP said
"Taro$_i$ said to Atsuko$_j$ that {he$_i$, *she$_j$} hated my friend."

The constraint is stylistically conditioned, in that it appears only in the reportive style, defined as the story being told from the narrator's point of view (Kuroda 1973 in Tenny, 2006:248). In contrast, it does not hold in the narrative, or non-reportive, style.[13] That the relevant examples are in the reportive style can be guaranteed by using sentence-final discourse particles, such as *yo* (Fujii, 2007).

Interestingly, the person restriction is lifted when evidential markers appear, either at the clausal or lexical level (Tenny, 2006). Consider (26) and (27):

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b. Taro$_i$ wa Atsuko$_j$ ni [∅$_{*i/j}$ watashi no tomodachi ga nikurashii to] kiita.
Taro TOP Atsuko DAT I GEN friend NOM hate-PRS COMP asked
"Taro$_i$ asked Atsuko$_j$ if {*he$_i$, she$_j$} hated my friend."
(from *ibid*.:3)

In (ia), the predicate *nikurashii* 'to hate' is associated with the matrix subject, i.e. the speaker of the embedded clause, as the matrix clause is a declarative, while in (ib), it is associated with the matrix object, i.e. addressee of the embedded question, as the matrix is interrogative. Fujii argues that predicates of direct experience take an obligatorily controlled PRO as their subject, and are bound by a Speech Act head. The structure for (ia) is taken to be (ii):

(ii) NP$_i$ thinks [$_{saP}$ Sa°$_{(+author)i}$[$_{TP}$ PRO$_i$ T° [$_{AP}$ t$_{PRO}$ Adj…

Here, the Speech Act head bears a [+author] feature, referring to the speaker, while in interrogatives it carries a [-author] feature, referring to the hearer. In matrix contexts, the value assigned is the 'actual speaker' or 'actual hearer', represented by the feature [±author-@]. The theoretical analysis aside, the basic observation tallies with other phenomena discussed here, such as DAR, indexical shift and the conjunct-disjunct distinction, where a matrix element refers to the speaker or addressee in the context, argued here to be represented in a Speech Act layer, while an embedded element finds an antecedent in the matrix speaker and addressee.

[13] Kizu (2009) argues that the sensitivity of the person restriction to stylistic factors means that it cannot be syntactically encoded, but is rather dependent on something outside syntax, such as semantics or pragmatics. This is problematic in more than one way, however: firstly because semantic and pragmatic notions *can* have syntactic repercussions, and secondly, because it is possible to encode the difference between reportive and non-reportive style in terms of syntax. Tenny (2006), for example, assumes that non-reportive style simply lacks the Speech Act layer.

(26) Mary wa sabishigatte iru yo
Mary TOP lonely-*garu* PRS *yo*
"Mary appears to be lonely."

(from *ibid*.:251)

(27) a. Kare wa samukatta toki, damou o ireta
he TOP cold-PST when put-on-heat-PST
"When it was cold, he put on the heat."
*"When he felt cold, he put on the heat."

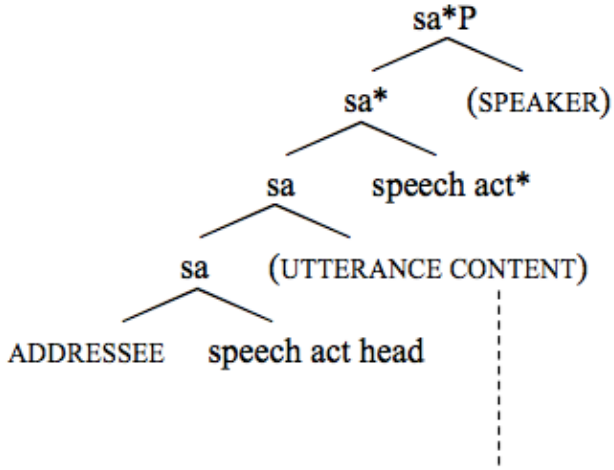
b. Kare wa samukatta node dambou o ireta.
he TOP cold-PST because put-on-heat-PST
"Because it was cold, he put on the heat."
"Because he felt cold, he put on the heat."

(from *ibid*.:250)

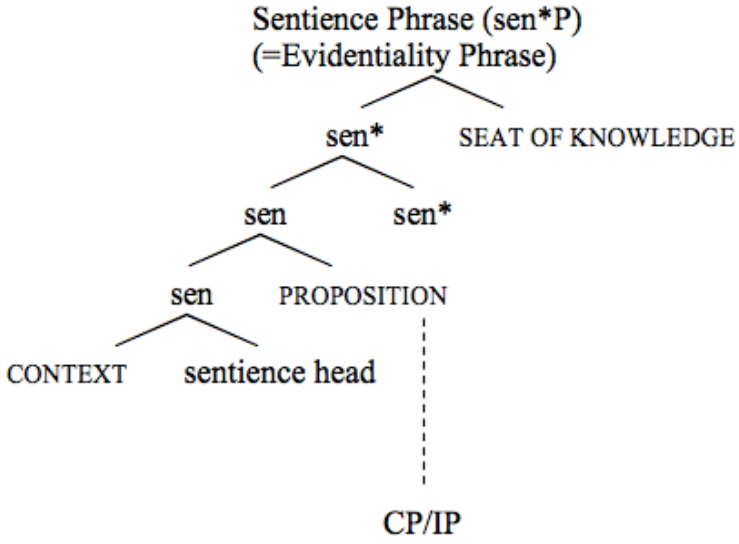
In (26), the evidential marker *-garu* 'appearing to be' attaches to the predicate of direct experience *sabishii* 'lonely'. As a result, the subject is not restricted to the first person, and can be the third person *Mary*. The same observation holds with respect to clause-level evidential markers as well. In (27a), the predicate of direct experience *samui* 'cold' appears in an adjunct clause headed by the non-evidential *toki* 'when'. Here, the person restriction remains, and only the non-thematic interpretation is available. However, if the adjunct clause is headed by the evidential *node* 'because', the thematic interpretation with *samui* 'cold' referring to the third person *kare* 'he' becomes available. Hence, both clause-level and lexical evidential markers can lift the person restriction.

To account for the person restriction and its interaction with evidentiality, Tenny argues for two additional projections above the CP: in addition to a Speech Act projection, akin to Hill's (2007) and others' analyses, there is also an Evidentiality projection. These are illustrated in (28a) and (28b), respectively:

(28) a.



b.



(from *ibid*.:260-261)

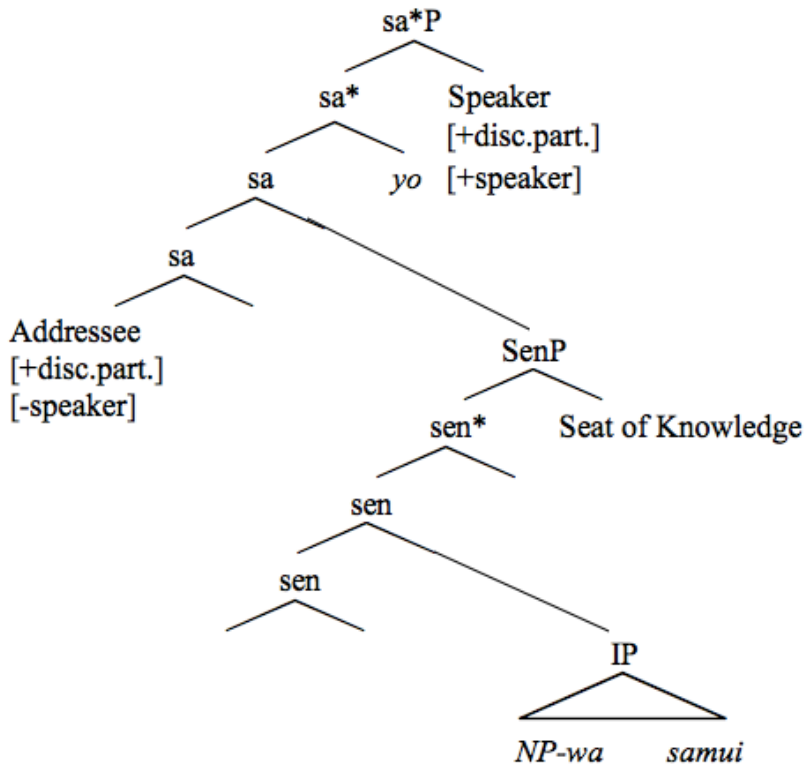
The Speech Act projection has three arguments, which are parallel in behaviour to the thematic roles in the VP. The highest argument here is the speaker, which is the 'agent' of the speech act, while the 'theme' is the utterance content, or the information conveyed, and the goal the 'addressee'.

The Evidentiality Phrase is located below the Speech Act Phrase, and has likewise three arguments: the seat of knowledge, the proposition, and the context. In essence, some sentient mind (represented as the seat of knowledge in the specifier of the Evidentiality projection) evaluates the truth of a given proposition with respect to a given context. Putting the two projections together, there are consequently three

sentience roles: the speaker, addressee, and the evidential role, i.e. the aforementioned evaluator of the truth.

As was illustrated above in (25a), in declaratives the subject of predicates of direct experience has to be the speaker. This holds also with respect to the wider class of evidential items: in declaratives, evidentials are speaker-anchored. This follows in Tenny's framework from the idea that the Evidentiality projection attaches to the higher Speech Act head, and is as such c-commanded by the speaker. Crucially, it is not c-commanded by the addressee. This is illustrated in (29):

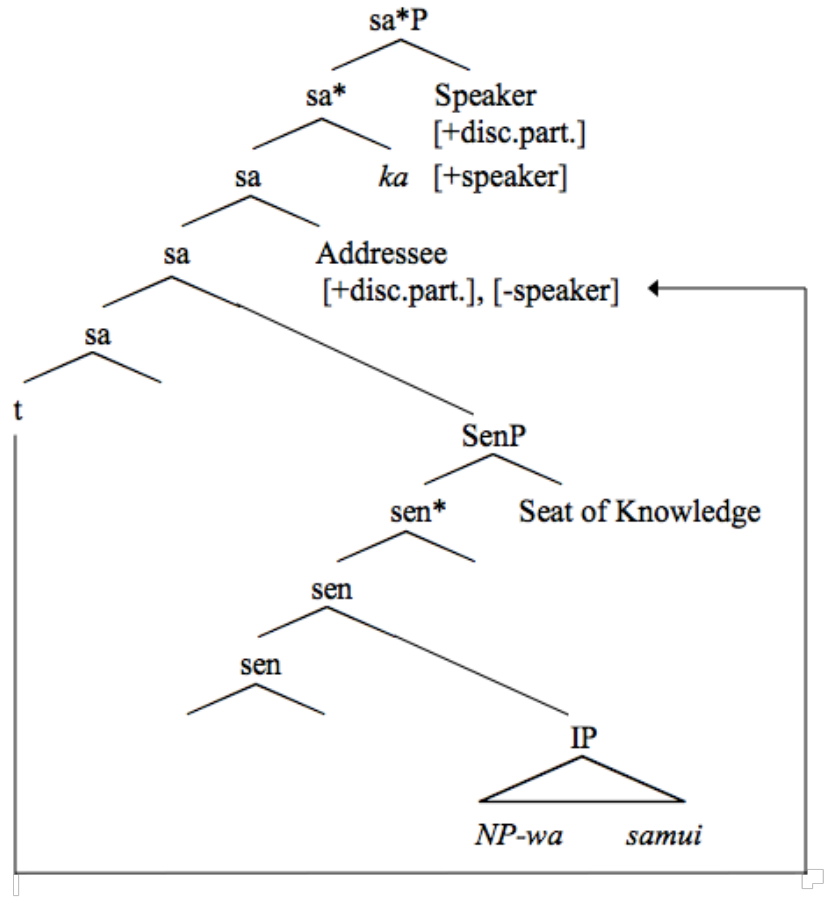
(29)



(from *ibid.*:263)

In interrogatives, on the other hand, evidentials are addressee-anchored. This implies that the Evidentiality projection has to have the addressee as its closest c-commander. To achieve this, Tenny introduces the so-called interrogative flip: a kind of passivization in the Speech Act layer whereby the addressee moves up in the structure, as illustrated in (30):

(30)



(from *ibid*.: 263)

The interrogative flip also serves as motivation for establishing the evidential role as an independent sentience role from the speaker and addressee.

Furthermore, referring expressions are associated with morphosyntactic features referring to sentient entities: [+sentient] is associated with the specifier of the Evidentiality projection, while features relating to first and second person are associated with the Speech Act projection. More specifically, the feature [+discourse participant] is associated with both the speaker and addressee, while [+speaker] is associated with the speaker and [-speaker] with the addressee. Elements carrying these features undergo movement to their related projections.

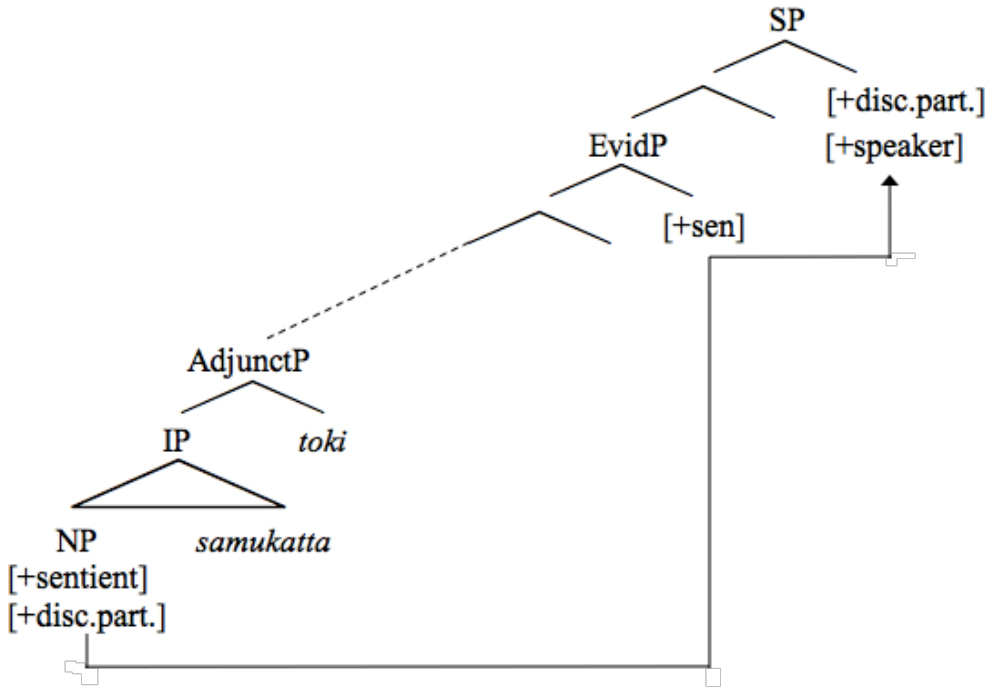
To explain the person restriction, Tenny argues that a predicate such as *samui* 'cold' is associated with an experiencer argument with the features [+sentient] and [+discourse participant]. This means that the experiencer argument has to raise first to the Evidentiality projection because of its [+sentient] feature, and then to the Speech

Act layer because of its [+discourse participant] feature. In declaratives, the nearest c-commander is the speaker, and in interrogatives the addressee, as shown above, giving rise to the different person requirements in the two clause types.

To account for the lack of the person constraint with a lexical evidential such as *-garu* in (26) above, Tenny assumes that a predicate with *-garu* has the feature specification [+sentient, -discourse participant]. This means that the predicate does not raise to the SA projection to activate the person restriction.

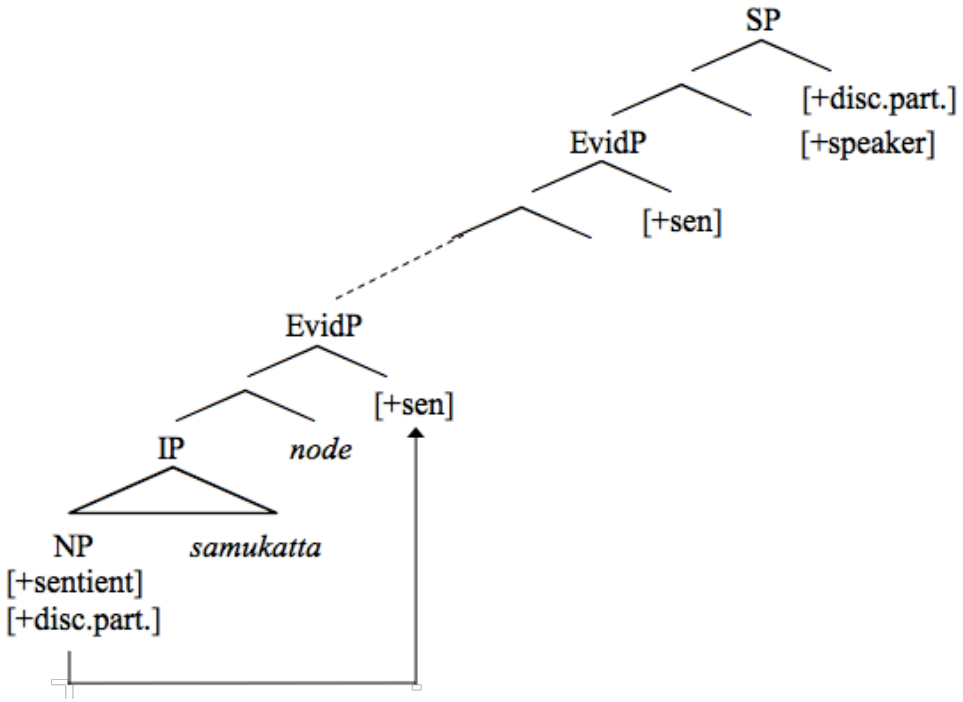
As for the distinction between the non-evidential *toki*-clauses and the evidential *node*-clauses, Tenny proposes the following structures for (27a) and (27b), respectively:

(31) a.



(from *ibid*.:273)

b.



(from *ibid*.:274)

In (31a), the experiencer argument of *samui* raises to the nearest c-commanding Evidentiality Phrase projection at the top of the matrix clause adjacent to the Speech Act Phrase, whence it can further raise to check its [+discourse participant] feature. In (31b), on the other hand, the experiencer argument has a nearer evidentiality projection to which it can raise. However, from here it cannot raise to the Speech Act Phrase as the intermediate projection has a blocking effect. The person constraint cannot therefore arise. Tenny argues that in this case the argument is not required to agree with the [+discourse participant] features; however, why they should be allowed to remain unchecked in this case remains unclear. This aside, the distinction between *toki*- and *node*-clauses arises from a blocking effect induced by an additional evidentiality projection in *node*-clauses.[14]

[14] Interestingly, Hara (2007) argues that contrastive *wa* is related to the Evidentiality Phrase. Essentially, contrastive *wa* presupposes that there is a stronger alternative to the contrasted element, giving rise to an implicature that the speaker considers the possibility that the stronger alternative is false. According to Hara, an implicature operator moves to an evidential projection in these cases. Furthermore, there is an asymmetry between *toki* and *node* clauses, in that the movement is possible in the latter but not the former; this is parallel to the distribution of the evidential marker *sooda/soona* (roughly paraphrased as 'I hear').

Crucially to the overarching discussion here, Tenny's approach links the Speech Act layer closely with evidentiality. In a language like Japanese, this is highly motivated, as is evidenced by how evidentiality can affect the person constraint. Independently of this, Japanese has a rich system of evidential markers (including the lexical marker *-garu* 'it appears', as well as a wide array of sentence-final markers such as *kamoshirenai* 'perhaps', *no ka* 'could it be that' *mitai* 'it seems that', and many more (for example, Ohta, 1991). However, the interrogative flip does not hold only with respect to specialized cases such as the person restriction in Japanese or highly grammaticalized evidentiality markers; Tenny illustrates it with adverbs such as *apparently* and *evidently* and verbs such as *seem* and *appear* in English. The observation regarding the interrogative flip and adverbs is also made by Woods (2014),[15] discussing more generally illocutionary and evidential adverbs, i.e. two of Cinque's (1999) four high adverb categories. Adverb orientation is defined, following Jackendoff (1972 cited in *ibid*.:210), as the adverb defining the attitude or state of knowledge of an individual. Reflecting Tenny's discussion, adverbs that in declaratives encode the speaker's attitude orient towards the addressee in syntactically interrogative non-rhetorical yes-no questions: in these cases, the adverbs describe the attitude or state of knowledge of the addressee as ascribed to them by the speaker, or the attitude with which the speaker expects the addressee to respond. This is illustrated with respect to *seriously* in (32):

(32) a. Seriously$_{\text{speaker}}$, Andy can play rugby.

b. Seriously$_{\text{addressee}}$, can Andy play rugby?

(from *ibid*.:211)

It should be noted, however, that although the empirical phenomena discussed above all point towards the encoding of speech act-related information, it does not follow that there is a one-size-fits-all theoretical machinery available. Zu (2015) makes this point with respect to Tenny's (2006) model, drawing on evidence from Newari, a

[15] Woods's proposed syntactic structures differ from Tenny's (2006) and are more akin to Hill's (2007) in that there is no separate Evidentiality Phrase in Tenny's sense; however, Woods utilizes the notion of 'logophoric centre' which is conceptually not dissimilar to Tenny's seat of knowledge.

Tibeto-Burmese language spoken in Nepal. In Newari, verb suffixes encode both tense and a conjunct-disjunct distinction. The conjunct marking system is illustrated in (33) and (34):

(33) a. ji ana wan-ā/ wan-e
I there go-PST.CONJ go-FUT.CONJ
"I went/ will go there."

b. cha ana wan-a/ wan-i
you there go-PST.DISJ go-FUT.DISJ
"You went/ will go there."

c. wa ana wan-a/ wan-i
(s)he there go-PST.DISJ go-FUT.DISJ
"(S)he went/ will go there."

(34) a. ji ana wan-a/ wan-i lā
I there go-PST.DISJ go-FUT.DISJ Q
"Did/ will I go there? (I don't remember.)"

b. cha ana wan-a/ wan-e lā
you there go-PST.CONJ go-FUT.CONJ Q
"Did/ will you go there?"

c. wa ana wan-a/ wan-i lā
(s)he there go-PST.DISJ go-FUT.DISJ Q
"Did/ will (s)he go there?"

(from Zu, 2015:156)

The set of declarative sentences in (33) shows that in a conjunct-disjunct system a first person is marked distinctly from other persons in statements: in (33a) with a first person subject, the verb carries a conjunct marker, while in (33b) with a second person subject and (33c) with a third person subject, the verb has the disjunct marker. In the interrogatives in (34), on the other hand, the second person is singled out as opposed to the other persons: here, the conjunct marker occurs in (34b) with a second

person subject, while (34a) and (34b) with first and third person subjects, respectively, take the disjunct marker. As such, the distinct person is the conjunct, and the opposing ones are disjuncts (Curnow, 2002a cited in Alcázar and Saltarelli, 2014:90). Hargreaves (1990, 1991, 2005 cited in *ibid*.:92) interprets this with respect to the notion of epistemic authority: while in declaratives the speaker is responsible for the contents of the statement, in interrogatives the addressee is presumed to possess the relevant knowledge. This is supported by the observation that rhetorical questions and questions where information is not sought or the answer is not known, as well as mirative contexts, typically exhibit the declarative pattern.

In Newari (Zu, 2015), the conjunct-disjunct distinction can also be embedded. In these cases, the conjunct verb form appears in embedded contexts when the embedded and matrix subjects are co-indexed, while the disjunct occurs when the subjects refer to different persons. As such, the subject of the conjunct verb in a complement clause can be a non-discourse participant. (35) illustrates the embedded context:

(35) a. wõ: [wa ana wan-ā dhakā:] dhāla
(s)he.ERG (s)he there go-PST.CONJ that said
"(S)he$_i$ said that (s)he$_{i/*j}$ went there."

b. wõ: [wa ana wan-a dhakā:] dhāla
(s)he.ERG (s)he there go-PST.DISJ that said
"(S)he$_i$ said that (s)he$_{i/*j}$ went there."

(from *ibid*.:157)

The matrix and embedded environments can be unified by stating that the conjunct verb form is used only when its subject is co-indexed with a higher DP: the subject of an embedded conjunct verb has to refer to the matrix subject, while the subject of a main conjunct verb has to be co-indexed with a discourse participant.

Given the difference between declarative and interrogative clauses, Tenny's (2006) interrogative flip account seems an initially appealing analysis to opt for here. However, Zu argues against it, based on the observation that the asymmetry between declarative and interrogative clauses is not structural but rather interpretational. As is

typical of conjunct-disjunct systems, in Newari rhetorical questions the subject of the conjunct verb is co-indexed with the speaker rather than the addressee. In an interrogative flip account, at least on Zu's understanding, the seat of knowledge mechanically checks its features with the closest c-commanding discourse participant. For Zu, this is problematic both conceptually and empirically: conceptually because if the seat of knowledge co-varies with the structurally closest discourse participant, it is unclear what motivates the Sentience Phrase in the first place, and empirically, because it does not predict the asymmetry between rhetorical and regular information-seeking questions. However, it is unclear whether the interrogative flip really must occur blindly across interrogatives; I will return to the question about syntactically different types of interrogatives in chapter 5, adopting Wiltschko and Heim's (2016) Response Layer to account for their different behaviour.

Zu, however, argues for an approach incorporating a Sen(tience)P encoding the seat of knowledge, like Tenny's, but not the process of interrogative flip. Here, SenP is embeddable and occurs at the edge of all clauses. The seat of knowledge is a logophorically sensitive PRO whose controller is determined in the semantics: it picks out the logophoric centre (Sells, 1987 cited in *ibid.*:158), i.e. an individual whose mental state or attitude the content of the proposition describes. In Newari, then, the conjunct marker is used only when its subject is co-indexed with the seat of knowledge.

I will not go further into the theoretical implications of Zu's account here. Rather, the central point in the context of the present discussion is that the type of structure adopted to account for discourse-related phenomena has to be considered on a case by case basis; it is not obvious that there should be an invariant universal template determining the precise realization of these phenomena. In the following, I turn to some further conceptual questions regarding what, in principle, any theoretical framework encoding speech act information should take into consideration.

2.4 Things to consider: conceptual conundrums

The above discussion has shown how several empirical phenomena – and this is only a subset of the data discussed in the literature – support the syntactic representation of speakers and addressees, or indeed even further projections. In the following, I will address some conceptual issues that have been raised in the literature, regarding what a syntax of speech acts should look like. The first question concerns what the speaker and addressee are in syntactic terms. I will then turn to the issue of whether or not both speaker and addressee are always present, and whether they are equal in syntactic terms. The final sub-section concerns the observation that not all discourse participant-related phenomena are necessarily encoded in the same way and in same layer, not directly at least.

2.4.1 You addressee, me speaker?

Translated to modern generative theory, Ross's performative hypothesis is essentially a matter of postulating silent speaker and addressee operators in C. However, its modern counterparts tend not to equate the speaker with *I*, or the addressee with *you*, at least not explicitly. Sigurðsson (2017) offers a valuable discussion of why the speaker cannot be directly spelled out as the pronoun *I*. Consider (36):

(36) [I hereby say to you] I know that prices will slump.

(from *ibid*.:207)

First, if the occurrences of the two *I*s were just occurrences of the same element, this would result in infinite regress, with all occurrences of *I* referring to the actual speaker.

Another profound problem is the so-called event/ speech participant, or E/SP split, as illustrated in (37):

(37) We finally beat Napoleon at Waterloo two centuries ago.

(from *ibid*.:198)

Here, *we* cannot be taken to be the simple sum of its parts, i.e. the speaker and Napoleon beaters. The speaker identifies themselves with the Napoleon beaters, but is not one of them, nor are the Napoleon beaters involved in the speech act – this is clear from the two century gap between the time of utterance and the event of beating Napoleon. Rather, the link between the theta-set, i.e. the set of individuals or entities that bear a theta role, and the speaker involves the speaker's own judgement, in this case identifying with the Napoleon beaters. It follows that the special nature of theta set-speaker linking does not derive from the theta sets, in this case Napoleon beaters, but from the speaker category.

Furthermore, in some contexts the pronoun *I* relates to a secondary SELF rather than the primary SELF of the actual speaker. This is apparent from person shift, bound variable readings, and *de se* readings. The first is illustrated by the Persian example in (38):

(38) [Amir speaks:] Ali be Sara goft [ke man tora doost daram].
Ali to Sara said that I your friend have.1SG
"Ali told Sara that he likes her."

(from *ibid*.:202)

Here, *man* 'I' and *tora* 'you' refer to Ali and Sara, rather than to Amir and his addressee.

The same split between the first person pronoun and the speaker occurs with bound variable readings:

(39) Only I got a question that I understood.

(from *ibid*.:202)

The natural interpretation involves a bound variable reading, i.e. 'There was only one person x_i who got a question that x_i understood (and x_i happens to be me, the speaker

of the clause)', rather than 'The speaker of this clause is the only one who got a question that this particular speaker understood'. In both the above cases *I* represents a SELF that is different from the speaker's primary SELF.

The same observation holds beyond first person pronouns. Consider (40):

(40) Mary looked into the mirror and thought she looked good.

(from *ibid*.:202)

The most natural reading is the *de se* one, where Mary thought of herself 'I look good', rather than the *de re* one where Mary thinks she is looking at someone distinct from herself.

So, the speaker feature and the overt *I* are distinct but computationally related: according to Sigurðsson, first and second person are not primitives of language, while speaker and addressee are basic notions. Rather, first person is a value assigned to an NP relating to the speaker, and second person a value assigned to an NP relating to the addressee. Sigurðsson captures this by postulating a number of edge linkers – silent features contained at phase edges – linking the inner phase to the next higher phase or to the speech act context. Relevant to the discussion here are the logophoric agent (Λ_A) and logophoric patient (Λ_P), or speaker and addressee, features. They enter the computation of Person (Pn). Any phase that licenses an NP has such linkers as well as an abstract Pn head. This is illustrated in (41) with a defective vP:

(41) $[_{CP}\ \Lambda_A$ - Λ_P … Pn … $[_{vP}\ NP_{\alpha Pn}]]$

(from *ibid*.:208)

There is an Agree relation between the logophoric features and Pn as well as Pn and the NP. It follows that the NP is valued as either personal, NP_{+Pn}, or non-personal, NP_{-Pn}, under Agree with Pn, and a personal NP must be valued in relation to the edge linkers. This gives the computations in (42):

(42) a1. $NP_{+Pn} \rightarrow NP_{+Pn/+\Lambda A, -\Lambda P}$ = first person by computation

a2. $NP_{+Pn} \rightarrow NP_{+Pn/-\Lambda A, +\Lambda P}$ = second person by computation

a3. $NP_{+Pn} \rightarrow NP_{+Pn/-\Lambda A, -\Lambda P}$ = third person by computation

b. NP_{-Pn} = third person by default ("no person")

This leads Sigurðsson to suggest that the speaker and addressee categories and even Person might stem from some other subsystem than syntax in the narrowest, minimalist sense, in which Merge and abstract Agree are autonomous and independent of meaning, as speaker, addressee and Person are not independent of nor unrelated to meaning. This, however, goes beyond the discussion here; what is crucial, though, is the observation that the speaker is not a simple first person pronoun, nor the addressee a second person one, and this should be borne in mind when syntactically encoding speech act participants.

2.4.2 Is anybody there? Questioning the presence of the addressee

There is ample empirical evidence for syntactic speaker and addressee features. However, this evidence does not entail that they are always present in the structure, or that they are equally independent notions from other grammatical features. While the speaker is typically taken to be present in any utterance, the role of the addressee is more contentious.

A key notion here is Portner, Pak and Zanuttini's (to appear) interlocutor-addressee, i.e. an addressee who is an interlocutor of the speaker. In contrast, when an utterance does not have an interlocutor-addressee, its addressee is either understood as generic or non-specific, or it has no addressee at all; as Woods (2014) notes, a declarative can be uttered to no-one in particular, an audience that is not a definable entity, or to someone who may not even be the intended audience for the utterance. Importantly to the discussion here, languages often show grammatical differences between clauses with an interlocutor-addressee and those without (Portner, Pak and Zanuttini, to appear). For instance, in several languages a nonfinite or nominalized clause can be used to express an imperative-like meaning in the absence of an interlocutor. Consider (43) from Italian, (44) from German, and (45) from English:

(43) Negli armadi o negli scaffali disporre in basso i materiali più pesanti.
in-the closets or in-the shelves put.INF in low the materials more heavy
"In closets and shelves, place the heavier materials in the lower areas."

(44) Bitte von der Bahnsteigkante zurücktreten.
please from the edge.of.the.track step.back.INF
"Please step back from the edge of the track!"

(45) No feeding the monkeys!

(from *ibid*.:6)

In all of the examples, there is no specific addressee as the target of the commands. Syntactically, the Italian and German examples use the infinitive rather than the imperative form, while the English example uses the gerund.

Woods (2014) reflects this observation in arguing that only speakers and not addressees are obligatorily structurally represented in declarative SAPs. Interrogatives, on the other hand, will always have a specific addressee, even if it may be the same person as the speaker in some contexts; otherwise the act of asking might not provide the speaker with the new information required. Empirically, the difference in representing the addressee in declaratives and interrogatives is supported by deleted arguments:

(46) a. The boss want to meet ~~me/?you/us~~ at 3pm.

b. Does the boss want to meet ~~me/you/us~~ at 3pm?

(from *ibid*.:218)

In (46a), informants prefer the deleted argument to refer to a first person one, while they disprefer or reject a second person reading. The latter reading would require further context to be readily accessible. On the other hand, in the interrogative (46b), both first and second person readings are possible. Additional evidence comes from West Flemish discourse markers (Haegeman, 2014 cited in *ibid*.:218): there are

separate markers for rhetorical questions as opposed to other interrogatives, and certain markers can only occur in declarative and imperative clauses, to the exclusion of interrogatives. Hence, the presence of the addressee in SAP must be independently motivated.

Furthermore, appealing to the notion of 'logophoric centre', Woods argues that the addressee is always dependent on the speaker.[16] The logophoric centre, or self in the original terminology, is defined by Sells (1987 cited in *ibid*.:222) as the individual "whose mental state or attitude the content of the proposition describes." Intuitively, the speaker is the logophoric centre of a simple declarative, as the speaker can only share the contents of their own mind. However, with questions the situation is more complex. A genuine interrogative does not straightforwardly constitute a proposition but rather represents a piece of information the speaker requires but does not know; it cannot therefore express the speaker's mind, and instead the logophoric centre is the provider of the answer, i.e. the addressee. Now, knowing the meaning of a question has been identified with knowing the meaning of the answer, i.e. questions are sets of possible or true answers, from which the addressee picks the one corresponding to their situation (for example, Hamblin, 1973; Karttunen, 1977; Groenendijk and Stokhof, 1994 cited in *ibid*.:225). As such, the speaker, instead of evaluating their own situation, chooses an addressee who they consider to have an epistemic situation that overlaps with the partition of the logical space the speaker has created by asking the question. So, if the speaker wants to elicit a valid answer, they are responsible for choosing an addressee with the requisite epistemic situation. Consequently, the addressee is identified and constructed by the speaker from the speaker's best knowledge.

Evidence from shifts in indexicality in echo questions supports the idea that the speaker gives up the logophoric centre to the addressee in interrogatives. Banfield (1978 cited in *ibid*.:226) observes that echo questions typically reproduce the questioned speech verbatim, but if the original speech contains first or second person pronouns, these shift in echo questions to be evaluated against the perspective of the original addressee. Consider (47):

[16] I will return to this idea in chapter 3, where it is reflected in the work of Thoma (2014).

(47) Q: Would you prefer a cup of tea?

a. Would I prefer a cup of téa?

b. * Would you prefer a cup of téa?

(from *ibid*.:226)

Furthermore, because the speaker constructs the addressee from their own knowledge, they can misrepresent the addressee's coordinates without the result being infelicitous. Consider (48):

(48) A: Did Margarita definitely$_B$ go to your party?

B: Presumably$_B$ she came because I saw her coat in the hall (but I didn't see Margarita directly).

(from *ibid*:226)

The same can be observed with Tibetan evidentiality markers. If the speaker presumes indirect evidence on the part of the addressee, but the addressee has direct evidence, the speaker's utterance is not infelicitous as it is based on the speaker's representation of the addressee's situation; however, if the addressee does not correct the evidential, the response will be infelicitous. This is illustrated in the contrast between the answers in (49), uttered in a context where A rings B at home to ask if Tashi is there. A assumes that B will have only indirect evidence, but in fact B is sat opposite Tashi during the call, and therefore has direct evidence of Tashi's presence:

(49) A: Bkra-shis nang-la yod-sa-red$_B$ pas?
Tashi in COP.INDIRECT.EVID Q
"Is Tashi in (can you tell)?

B: # Nang-la yod-sa-red$_B$
in COP.INDIRECT.EVID
"She is in (I can infer)."

B': Nang-la dug$_B$.
in EVID(DIRECT)
"She is in (I can see her.)"
(from De Villiers et al., 2009, cited in *ibid.*:227)

Here, A can felicitously use the indirect evidential marker, but B must correct it to the direct marker.

So, the evidence here suggests that the addressee may not always be syntactically represented, and that it is, to an extent, dependent on the speaker. The situation is further complicated by what the speaker calls on the addressee to do – something that I will return to in chapter 5.

2.4.3 Going lower: on the diversity of speaker and addressee phenomena

The final point of the conceptual discussion concerns the observation that languages have several grammatical means of expressing the relation between the speaker and addressee, and that these can differ with respect to which layers of syntax they involve. Portner, Pak and Zanuttini (to appear) show this with respect to politeness markers, which, they argue, fall into two classes. First, content-oriented markers of politeness express information about the relation between the speaker and the referent of a noun phrase. This is the case with polite and familiar pronouns in French, Italian, and German, expressing whether the speaker is in a formal or familiar relationship with the referent of the pronoun, who is the addressee of the utterance. Utterance-oriented markers of politeness, on the other hand, encode information about the speaker-addressee relation without the addressee necessarily being a participant in the event denoted by the predicate. Examples of this category include the speech style particles of Korean, the *-mas-* politeness marker in Japanese, and allocutive agreement in Basque. These markers do not refer to an entity, so that they do not contribute to the propositional content of the sentence, but convey information about the social dimension of the utterance. Crucially, the first category, but not the latter, can be embedded; in other words, phenomena in the latter category, but not the former, are main clause phenomena.

To show that the speaker-addressee relation is syntactically encoded, Portner, Pak and Zanuttini analyze Korean plain speech style particles. Korean has a rich system of speech styles, including formal, polite, semiformal, familiar, intimate, and plain. Only the plain style can appear in complement clauses. Declarative, imperative, and interrogative clauses have their dedicated plain style particles; Portner, Pak and Zanuttini further divide particles for each clause type into two categories, one marking both the speaker-addressee relation and clause type, the other only clause type.

For example, plain style interrogatives are marked with *-nya* or *-ni*. However, only *-nya* can occur in embedded contexts:

(50) Yumi-ka Inho-hanthey [choysen-ul ta ha-ess-(nu)nya/*ni-ko]
Yumi-NOM Inho-to best-ACC all do-PST-Q.PLAIN-COMP
mwul-ess-ta.
ask-PST-DECL.PLAIN
"Yumi asked Inho if he did his best."

(from *ibid.*:10)

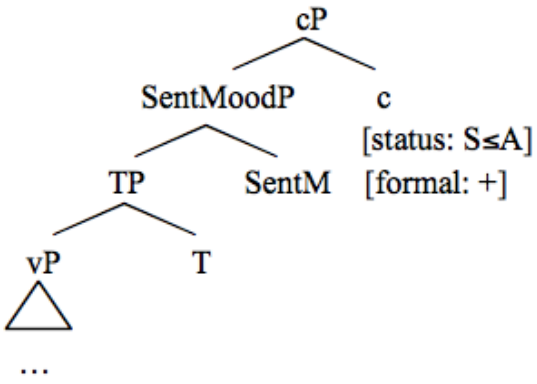
The difference in embeddability arises if *-nya* marks only clause type, and *-ni* marks both the speaker-addressee relation and clause type. The same can be shown to hold for declaratives and imperatives as well. This is supported by the observation that *-nya* can be used in contexts where there is no specific interlocutor, i.e. no interlocutor-addressee (providing another piece of evidence for the addressee not being always encoded, as argued above) such as self-directed or rhetorical questions, or in writing.

The authors argue that the clause typing particles occupy a SentMoodP, a projection above TP but below the embedding complementizer.[17] They are used in root clauses that are not addressed to a specific interlocutor as well as in complement clauses. The

[17] Portner, Pak and Zanuttini do not discuss how their proposed structure maps onto the typical CP-TP structures any further than this. They do not, for example, clarify why their cP is below CP, unlike is typically assumed. They do note, though, that all languages need not have a SentMoodP, and the relevant meanings can be encoded in whatever category is dedicated to them in a given language, for example TP, although no actual examples of different types of languages are given.

speech style particles, on the other hand, convey additional information about the speaker-addressee relation and are realizations of cP, 'c' standing for 'context'. cP is a projection above SentMoodP, is present in root but not embedded clauses, and hosts utterance-oriented markers; it is a layer of structure that interfaces with the context of utterance, as opposed to the CP above it, which the authors take to be the interface between the matrix and embedded clause. The head c is argued to carry the features [status] and [formal], the former encoding the social relation between the speaker and addressee, and the latter specifying the formality of the situation. The structure is illustrated in (51):

(51)



(from *ibid*.:13)

To wholly capture the non-embeddability of the cP particles, the authors adopt the idea that argument clauses are more nominal than root or adjunct clauses (Rosenbaum, 1967; Kiparsky and Kiparsky, 1970 cited in *ibid*.:24), and that embedding always involves CP, with the CP of embedded declaratives always carrying a [+D] feature, which it shares with demonstratives and definite determiners; semantically, the CP must have an appropriately nominal meaning. This builds on Chierchia's (1984 cited in *ibid*.:24) semantic framework where some semantic values outside the domain of individuals are correlated with an individual by a Fregean mapping correlate function *f*; the property 'run', for example, serving as the denotation *run*, has an individual correlate *f*(run). This holds for finite complement clauses as well, among other things, so that the reference of *that Mary ran* is the individual correlated with the proposition that Mary ran. It follows then that as SentMoodP, or whatever the relevant clausal unit is in an individual language (see footnote 17), only has a propositional semantic value, its meaning can be represented as an individual and it can be embedded. cP, on the other hand, manifests non-

propositional, performative meaning – as is clear from the social implications of the speech style markers – which cannot be represented as an individual and cannot therefore be embedded.

To account for why certain content-oriented markers of politeness can occur in embedded contexts, Portner, Pak and Zanuttini argue that they are not in themselves realizations of c, but acquire the relevant status feature from c through binding. Hence, they do not require c in the same clause, as they can be bound by it across clauses, and the status feature is then interpreted at c, i.e. at the root level. This follows from the independently motivated ideas that, first, pronouns can be bound, and second, that their binder can be an abstract operator. In this case, the pronouns are bound by a null Interlocutor element at c when they designate the addressee. For example, in Italian c is assumed to have the features [status] and [formal], of which the latter determines the choice of pronoun in contemporary language. So, when a pronoun referring to a single individual is bound by Interlocutor and c is valued as [-formal], it is spelled out as *tu* (the familiar second person pronoun); if c is valued as [+formal], the spelled out pronoun is *lei* (the formal second person pronoun).

Again, I will not discuss the theoretical detail of this analysis further here; whatever its merits and problems, however, the observations serve to show that just because something relates to speakers and addressees does not make it straightforwardly a speech act layer-related phenomenon. This is the case with the much-discussed German discourse particles as well. These elements occur in the so-called middle field, i.e. below FinP and above VP (Bauer and Obenauer, 2011), as illustrated in (52) with respect to *schon*:

(52) A: Ich habe nicht genug für die Prüfung gelernt.
I have not enough for the exam studied.
"I haven't studied hard enough for the exam."

B: Du wirst es schon schaffen.
you will it *schon* succeed
"You will pass nevertheless."

(from Egg, 2012:298)

Here *schon* has the effect that B accepts A's statement that they haven't studied hard enough, but at the same time points out that the very natural inference, i.e. that A will not pass, is not applicable. It thus synchronizes individual beliefs, i.e. encodes discourse participant-related information, yet is encoded lower down in the structure.

Another example of speaker and addressee-related information occurring lower down in the structure is the Afrikaans non-core dative carrying an affective interpretation (Biberauer, 2018):

(53) Ek het vir my net gou vir Marie 'n geskenkie loop koop.
I have for me just quick for Marie a present.DIM walk buy
"I just quickly went and got me a present for Marie."

(from *ibid*.:22)

Here, the non-core dative *vir my* 'for me' co-occurs with the core dative *vir Marie* 'for Marie', showing that the two types of datives are structurally distinct. Biberauer proposes that the non-core dative occurs at the vP edge, based on evidence that it shows true optionality, i.e. interpretatively vacuous variation, in its ordering with modal particles – here *mos* –, also assumed to occur at the vP edge:

(54) Ek het {mos vir my}/ {vir my mos} vir Andries vererg.
I have {*mos* for me}/ {for me *mos*} for Andries annoy
"I after all got myself annoyed at Andries."

(from *ibid*.:22)

There is thus further cross-linguistic evidence for Portner, Pak and Zanuttini's observation that not all speaker and addressee-related information is directly encoded in a speech act layer.

2.5 The way forward

What has emerged from the preceding discussion empirically is a strong case against banning speaker and addressee features from the syntax. In theoretical terms, although

the various case studies make some unique assumptions, the broader picture is a unified rather than a disparate one: the analyses converge on speaker- and addressee-related projections in the left periphery of the clause. Of course, there is variation regarding the names of these projections, how they interact with the lower clause (for example, Portner, Pak and Zanuttini's (to appear) work, in part, on content-oriented politeness markers), and how they relate to evidentiality (Speas and Tenny (2003) and Tenny (2006), for example; for an overview, see Rooryck (2001a,b)), among other things, but the bigger picture of left-peripheral speech act projections holds.

The following chapters will launch on the main topic of the dissertation, a comparison of several Finnish and Japanese phenomena from a discourse-oriented perspective. Given the comparative nature of the discussion to follow, as well as the phenomena being – as is typical for anything pragmatic – highly context-dependent and variable, the methodological desiderata for the framework to be adopted include it being a suitable tool for analyzing several different types of structures, and it allowing for cross-linguistic variation, rather than squeezing everything into a tight theoretical mould.

The Universal Spine Hypothesis (Wiltschko, 2014; Thoma, 2016; Wiltschko and Heim, 2016) offers the required flexibility. As Wiltschko and Heim (2016) note, it has been developed specifically to discover and compare language-specific categories, providing a tool to address Haspelmath's (2007 cited in *ibid.*:13) observation regarding language typology that "almost every newly described language presents us with some "crazy" new category that hardly fits existing taxonomies." This entails allowing syntax to interact with the context, at least in two ways. On the one hand, not all clauses are the same with respect to their size, this being determined relative to their linguistic context. On the other hand, also units of language – a notion to which I will return imminently – will be interpreted in relation to their surrounding context, both in the syntactic and discourse sense.

The latter mode of syntax functioning in relation to the context is encoded by the central tenet of the USH, namely that grammatical categories are not universally pre-defined, but are rather constructed on a language-specific basis (Wiltschko, 2014; Wiltschko and Heim, 2016). The building blocks for these categories (c) are first,

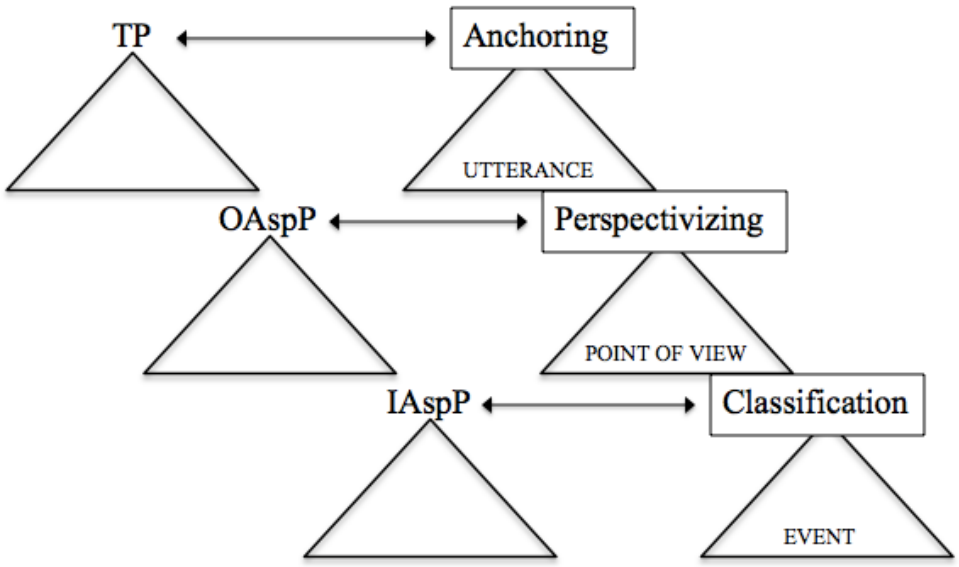
language-specific units of language (UoL), and second, the universal syntactic spine, itself composed of a series of abstract categories (K). The formula is summarized in (55):

(55) c = K + UoL

(from Wiltschko and Heim:14)

The UoLs provide the substantive content to the categories. The universal spine, on the other hand, comes in layers, each of which has an abstract core function, possibly based on general cognitive functions. (56) illustrates how the interaction between the two results in specific grammatical categories:

(56)



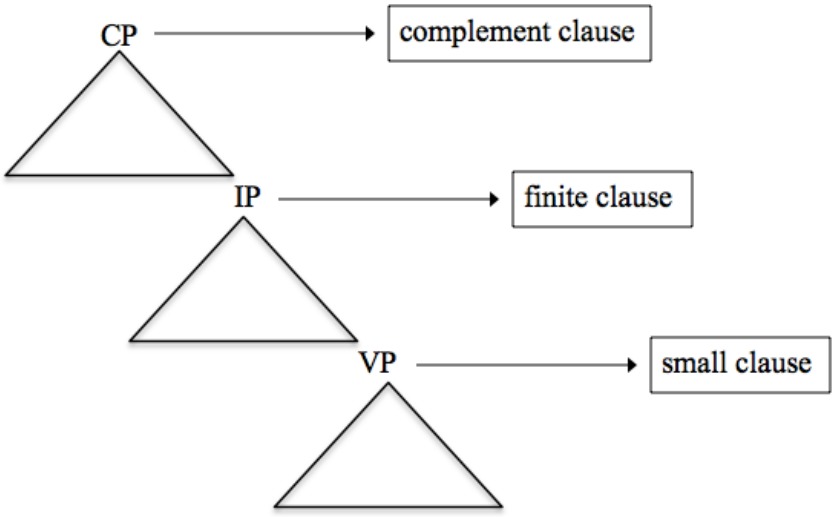
(from *ibid.*:15)

The universal, abstract functions are represented in the schema on the right, while the tree on the left represents what a possible combination of these and certain UoLs may result in. In this case, the universal layers are all paired with UoLs with temporal content: the lowest layer classifies the event, and combined with temporal content, such as telicity, this results in inner aspect. The second layer introduces a point of view, adding a perspective relative to which the event is viewed: perspectivizing with respect to reference time gives outer aspect. The highest layer anchors the event to the utterance, and anchoring based on time results in the category tense.

Crucially to the discussion to follow, this implies on the one hand that UoLs are not intrinsically, i.e. lexically, specified for categorial information, but their categorial identity is derived through their syntactic association with a categorizer (Thoma, 2016). The relation between a form and meaning is hence not direct: the syntax, i.e. the Universal Spine, mediates this relation and affects the interpretation of UoLs. These interpretations will always be language-specific, but given the universality of the abstract spine, the categories and UoLs will have much in common across languages (Wiltschko and Heim, 2016). Conceptually, this is appealing from a Minimalist perspective: the USH promotes essentially a fractal structure, where similar patterns recur throughout the structure (for further discussion, see Biberauer (2018)). This is both theoretically more parsimonious and more effective from an acquisitional point of view as compared to the postulation of more layer-specific features at the expense of recurring patterns. It also captures the multi-functionality of units of language effectively, and allows units of language to be reusable (Ramchand, 2018) as they may associate with different locations on the spine, thus again minimizing the need to postulate multiple homonymous units, for example.

The other sense in which the USH capitalizes on syntax operating relative to the context pertains to the level of individual languages: not all structures will be projected in all contexts. Wiltschko and Heim define the clause as the maximal projection of the highest functional category associated with a small clause, i.e. a minimal sentence containing a subject and a predicate, and expressing a proposition. The size of the clause may vary according to the linguistic context: verbs of perception require their embedded clauses to project only a VP, matrix declarative clauses need IP structure, and some verbs embed CPs. This is illustrated in (57):

(57)



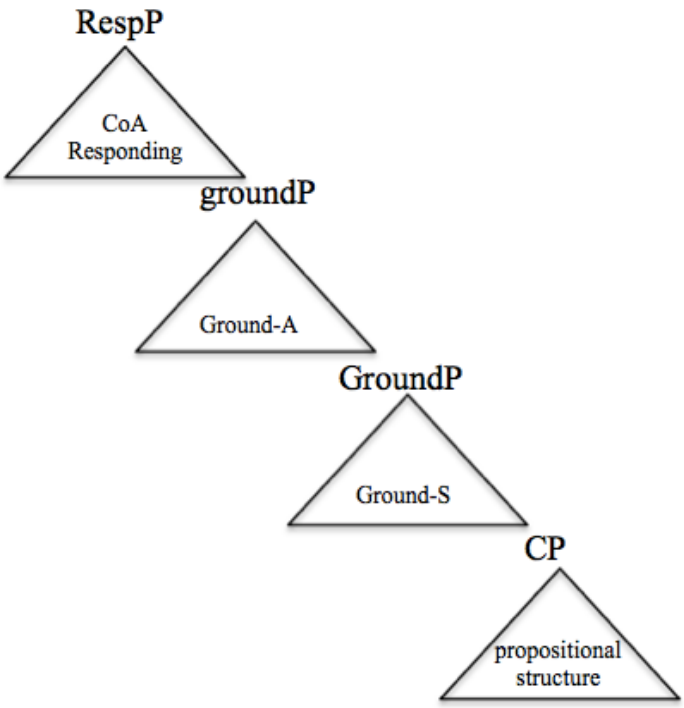
(from *ibid.*:10)

The proposal tallies with the accounts discussed above, where it is standardly assumed that matrix clauses project more structure than many types of embedded clauses, accounting for the availability of root phenomena. Linking the size of the clause to the linguistic context allows the USH to capture many phenomena in a flexible way: for instance, it can easily incorporate the idea of indicative clauses being more specific and therefore more independent of the matrix clause than subjunctive ones, as mentioned above, as well as offering a useful tool to capturing the differing behaviour – and sizes – of various types of embedded clauses clauses, as will be discussed in chapter 4.

Crucially to the discussion here, in some contexts – most notably conversations – the clause grows beyond the CP to obligatorily include structure that hosts forms modifying speech acts. This structure consists of two layers. The lower one, the Grounding Layer, is defined through the notion of grounding, i.e. "the fundamental, moment-by-moment conversational process by which speaker and addressee are constantly establishing mutual understanding" (Bavelas et al., 2012 cited in Thoma, 2016:92), and is "dedicated to the communicative aspect of language, i.e. how we package our thoughts and relate them to others" (Wiltschko and Heim, 2016:16). It hosts projections for elements encoding speaker and addressee commitment, as will

be discussed in more detail in the following chapters.[18] Above the Grounding Layer is the Response Layer, which lets the addressee know what the speaker wants them to do with the utterance, i.e. the so-called Call on Addressee. This will be further discussed and motivated in chapter 5. The structure is illustrated in (58):[19]

(58)



(from *ibid.*:16)

To anticipate the discussion to follow, it should be noted that while the choice of the USH as the guiding framework here was motivated largely in methodological terms above, there are some key differences between the structure in (58) and Speas and Tenny's (2003) approach, for example, which will make the former a better fit to some of the data discussed in the following chapters. The USH and Speas and Tenny's analysis both capture the key insight that there is an important divide

[18] Here, the addressee is taken to occupy a higher projection than the speaker; as was discussed in section 2.3, this is not a universally acknowledged ordering, and I will return to the question in chapter 3 with respect to Finnish.

[19] Here, the projection hosting the addressee is represented as groundP and the projection hosting the speaker as GroundP, thus reflecting the generalized idea of a light structure dominating a more substantive one. However, the authors do not discuss this choice, nor does it have any conceptual or empirical repercussions in their analyses; indeed, in other work adopting the USH framework this notation is not used. Thoma (2016), for instance, opts for $\text{Ground}_{\text{A}}\text{P}$ and $\text{Ground}_{\text{S}}\text{P}$.

between the CP and a higher speech act layer, and as such, the data discussed in chapters 3 and 4 could be cast in terms of either model. However, chapter 5 will capitalize on the importance of the Response Layer, presenting data from interrogatives that cannot be captured on Speas and Tenny's analysis lacking this topmost layer.

Methodologically, it follows from the USH that in order to determine what on the spine a particular UoL is associated with, it is necessary to understand (a) the relative hierarchical position of the UoL within the sentence structure, i.e. the linear ordering effects, and (b) its absolute position, i.e. its function (Wiltschko and Heim, 2016). The practical implications of these assumptions will become clear during the course of the following chapters, and especially in the analysis of the Finnish and Japanese discourse particles.

The above discussion set out to show that the idea that no discourse-related, or indeed any contextual, information should be allowed into the syntax is not tenable from an empirical perspective. The road from Ross has led to a highly discourse-sensitive framework to syntactic structures, the USH, and a shift in syntactic perspective: as Richard A. Rhodes (personal communication to M. Wiltschko, cited in Wiltschko and Heim, 2016:12) phrased it, "What if we make the prototype sentence one in which the bulk of the information is about the relationship between the interlocutors?" The following chapters approach this question from the perspective of Finnish and Japanese.

Chapter 3 Speakers and addressees for Finnish and Japanese

3.1 Introduction

> "When I insert [discourse particles] into my speech, the reason for doing so cannot be immediately found in the subject matter of my speech but rather in an emotional need of the speaker."
>
> (Georg von der Gabelentz, 1891 cited in Bayer, 2010:1)

Discourse particles – the clue is in the name – occupy a position at the intersection of syntax and pragmatics. As such, they are conventionally viewed as a component of pragmatics rather than semantics, pertaining to the expressive rather than propositional or descriptive meaning of a sentence (Bayer, 2010; Bayer and Obenauer, 2011), and providing additional meaning rather than interacting with the truth conditions of the sentence (Nevis, 1986). Bayer (2010), for instance, locates the function of discourse particles to how sentence types connect to the discourse, while Mosegaard Hansen (1998) defines them as non-propositional linguistic items with a primary connective function at the level of discourse. For Zimmermann (2011), they establish a link between the proposition expressed by the utterance and the knowledge and belief systems of the discourse participants: they organize discourse by conveying information concerning the epistemic states of the discourse participants with respect to the propositional content of the utterance; fit the propositional content of a sentence to the context of speech by giving the utterance its specific 'shade' or by imposing restrictions on the appropriate contexts for a given utterance; and provide discourse participants with clues as to which propositions are mutually accepted, controversial, or uncertain, rather than establishing descriptions of particular states of affairs.

The relevance of discourse particles to syntactic theory arises precisely from their nature as intermediaries between syntax and pragmatics. Understanding how these particles connect to the syntax and features such as Force (Bayer and Obenauer, 2011) is key in shedding light on the organization of grammar: as Bayer and Obenauer write, "[d]iscourse particles are an important source of information about the relation between clause structure, its functional organization and semantic/pragmatic

interpretation" (p.486). More specifically, the focus here will be on the cross-linguistic variation that different languages may show in how they encode speaker- and addressee-related information: where and how are discourse particles encoded, and how unified are different languages in this respect?

Following the USH (Wiltschko and Heim, 2016), discourse particles are lexically underspecified and only carry a certain pragmatic import because of their positioning along the syntactic spine. Conversely, determining this position thus starts with understanding their function. Crucially, these discourse-related meanings are determined above the CP, in the Grounding Layer. Syntax and pragmatics are then essentially intertwined, and understanding one necessitates understanding the other. These two sides of the proverbial syntax-pragmatics coin will be reflected throughout the discussion here.

As noted in the previous chapter, in methodological terms it follows from the USH that in order to determine what on the spine a particular UoL is associated with, it is necessary to understand, first, the relative hierarchical position of the UoL within the sentence structure, i.e. the linear ordering effects, and second, its absolute position, i.e. its function (Wiltschko and Heim, 2016). This chapter focuses on the latter, elucidating the discourse functions of the relevant particles. The following chapter turns to the former criterion, and analyses the relation of the particles to other discourse-related phenomena.

In what follows, I will first review the Finnish particles from a semantic-pragmatic perspective in section 3.2, collating the intuitions about their interpretations put forward in the existing literature. In section 3.3, I will then consider a novel approach to the particles' meanings in terms of speakers and addressees and its implications for formal syntax. This calls for a reinterpretation of the left-peripheral structure standardly posited for Finnish. Section 3.4 turns the focus to Japanese. A review of recent research on Japanese particles and the right periphery in general reveals that although a discourse-related layer in the syntax may well appear in unrelated languages, the notions that languages encode there can be subject to cross-linguistic variation. Section 3.5 is a brief note on self-talk, considering the question of what kinds of speakers and addressees the particles correlate with.

This chapter makes the argument that the pragmatic functions crucial to understanding the interpretation and structural properties of discourse particles are best seen – conceptually at least – as manifesting an additional layer – the Grounding Layer – in the syntax. The next chapter will then take this further, showing that there is an important boundary between this layer and CP, while chapter 5 will turn to further uses of the particles invoking the Response Layer.[20]

3.2 First of all, vague? The semantic and pragmatic import of Finnish discourse particles

Finnish has an array of clitics that fall broadly under the discourse particle umbrella. Although the main focus of the discussion will be on the second position clitics *-hAn* and *-pA*, the discussion will also touch upon the question particle *-kO*, *-kin/-kAAn*, a focus clitic in its main function, as well as *-ka*, *-s*, and *-mA*, which are all more restricted in their distributions. What follows is an overview of the semantics and pragmatics associated with these clitics in the literature; section 3.3 will then approach the discourse particle phenomenon from a formal syntactic perspective. The nature of the particles as crucially discoursey sets a challenge for any comprehensive account of their semantic or pragmatic contribution: Davis (2011:13) takes the meaning of these particles to be "notoriously difficult to pin down," while according to Nevis (1986:5), "[t]he meanings of the particle clitics are, first of all, vague." Zimmermann (2011) notes that most discourse particles have additional interpretive functions: they support the expression of paralinguistic categories, such as emotion and politeness, and in certain linguistic environments, they trigger indirect speech acts. According to Zimmermann, these effects are secondary in the sense that they do not follow from lexical ambiguity but rather from a combination of the particles' basic meaning and general semantic properties of the embedding utterance, possibly

[20] Where no source for the data are cited, the data are my own. The judgements for Finnish come from four native speaker informants, in addition to my own judgements. All the informants are from western Finland, although two of them live abroad, and none of them speak a non-standard dialect. For Japanese, the data come likewise from four native speaker informants. Again, none of them speak a non-standard dialect, and all of them either live or have lived in the Tokyo area, with two informants studying abroad.

accompanied by Gricean pragmatic reasoning. Hence, the particles' meaning cannot be reduced to semantic properties of the morpheme only, but the pragmatics of the relevant utterance and general discourse context must be taken into account as well. This is where the strength of the USH comes in: discourse particles have minimal lexical meaning, their function being derived from their syntactic context, allowing room for further, more specific interpretations to be derived from the pragmatic context.[21]

3.2.1 Basic meanings

The vagueness of the particles is perhaps best reflected in the case of *-hAn*. It has been associated with functions involving appealing to the listener as in example (1), mitigating an expression (2), and explicating what was said before (3) (Penttilä, 1957 cited in Nevis, 1986:6), as well as amelioration (4), contradiction (5), new discovery (6), or reminder of a new truth (7) (Karttunen, 1975a cited in *ibid*.):

(1) Olet-**han** itsekin samaa mieltä.
be-2SG-*hAn* self-*kin* same-PART opinion-PART
"You are yourself of the same opinion, you know."

(2) Mitä-**hän** tuolla tehdään?
what-*hAn* there do.PASS
"What's being done there, I wonder?"

[21] The underspecified meanings of UoLs find support also in contextualism in semantic and pragmatic work. Jaszczolt's (2005) Default Semantics, for example, incorporates into utterance interpretation various sources of speaker meaning, such as word meaning, sentence structure, pragmatic inference, and various types of default interpretation. This is conceptually very much akin to how meanings are constructed according to the UHS. How contextualist approaches would mesh with such a syntactic, or indeed any syntactic, analysis depends on what view they adopt on whether, and how, syntactic considerations play into the computation of lexical meaning. There are no doubt fruitful avenues to explore here and ways to incorporate different domains of linguistics into a more unified understanding of language.

(3) Hän tuntee minut, on-**han** hän opettajani.
s/he knows me-ACC is-*hAn* s/he teacher-1SG.POSS
"S/he knows me, s/he is, after all, my teacher."

(4) Puhu-**han** asiasta isälle.
talk.IMP-*hAn* matter-ELA father-ALL
"Talk to father about it, why don't you."

(5) a. Hän ei ole kotona.
s/he not.3SG be home
"S/he is not home."

b. On-**han**!
is-*hAn*
"Yes s/he is!"

(6) Suomi-**han** on pieni maa.
Finland-*hAn* is small land
"Finland is a small country, by golly. (I just found it on the map)"

(7) Suomi-**han** on pieni maa.
Finland-*hAn* is small land
"Finland is a small country, after all. (You don't have to aim all that many rockets at it!)"[22]

(adapted from Nevis, 1986:6-7)

Hakulinen (1976 cited in *ibid.*:8) identifies the central function of *-hAn* as marking a sentence as a reminder of familiar information, as opposed to a conveyor of new information, and, more recently, Huhmarniemi (2012) echoes this by highlighting

[22] The readings associated with examples (6) and (7) depend on the context of utterance as well as the overall prosodic effect. This is a prime example of how the exact meaning of a discourse particle cannot be computed without the wider context: these elements are pragmatic rather than semantic at heart.

how -*hAn* expresses that the sentence conveys meaning already shared by the speakers:

(8) Sitä kirjaa-**han** Pekka luki.
that-PART book-PART-*hAn* Pekka read
"It was that book Pekka was reading."

(from *ibid*.:78)

The more specific meanings of -*hAn* then arise from the interaction of this more general meaning with the context of the utterance.

It should be noted, though, that the idea of -*hAn* essentially not expressing new information can be something of an oversimplification, as adopting a more fine-grained approach to the notion of 'new information' shows. Välimaa-Blum (1985 cited in Nevis, 1986:8-9) argues that -*hAn* in fact signals *contextually* new information; this is in contrast to the definition of new information as new to the discourse. According to Välimaa-Blum, support for this comes from the observation that -*hAn* can appear in embedded clauses only when the matrix verb permits the introduction of new information. However, as will emerge in chapter 4, the occurrence of -*hAn* in non-matrix contexts is in fact more complex than this. The seemingly paradoxical behaviour of -*hAn* may be traced back to unclear terminology – as Välimaa-Blum's refinement to the notion of 'new information' suggests – rather than systematic differences between main and embedded uses, for instance.

The core function of the focus -*pA* is usually taken to be that of an emphasis marker, putting emphasis on a contrastive or otherwise unexpected meaning, or exclamative force (Nevis, 1986; Huhmarniemi, 2012):

(9) On-**pa** täällä kuuma!
is-*pA* here hot
"It really is hot in here!"

(adapted from Nevis, 1986:10)

Hakulinen (1984a cited in Nevis, 1986:10) further attributes to *-pA* the function of an interpersonal mitigator (10), and a hortative addition to an imperative (11), while Karttunen (1975b cited in *ibid.*:10) notes that *-pA* can also express certainty (12), something just observed (13), intensity in rhetorical questions (14), 'you see' at the beginning of stories (15), a concessive meaning (16), or a contradiction (17); Holmberg (2014) highlights the use of *-pA* as expressing contradiction with a previous claim. The different uses of *-pA* are further illustrated in (10)-(17):

(10) Oli-**pa** kerran…
was-*pA* once
"Once upon a time…"

(11) Tule-**pa** tänne.
come-*pA* here
"Come over here a bit."

(12) Kyllä-**pä** oli hauskaa.
yes-*pA* was fun-PART
"It really was fun."

(13) Antti-**pa** se siinä.
Antti-*pA* it there
"Why, it's Antti."

(14) Kuka-**pa** ei muistaisi kuinka…
who-*pA* not.3SG remember-COND how
"Who wouldn't remember how…"

(15) Olisin-**pa** rikas!
be-COND-1SG-*pA* rich
"I wish I was rich!"

(16) Oli-**pa** miten oli.
was-*pA* how was
"It is as it is."

(17) a. Et saa mennä sinne.
not-2SG may go there
"You may not go there."

b. Saan-**pa**.
may-1SG-*pA*
"Yes I may."

(adapted from Nevis, 1986:10-11)

As Hakulinen (1984 in *ibid*.:11) notes, these various meanings fall out from the core functions of *-pA* as marking emphasis and exclamation.

-kO is the obligatory interrogative marker in *yes-no* questions, and *if/whether*-type subordinate clauses,[23] as is apparent from (18a) and (18b), respectively:

(18) a. Voittavat-**ko** oikeistopopulistit kunnallisvaalit?
win-3PL-*kO* rightwing populists local elections-ACC
"Will the rightwing populists win the local elections?"

b. Toimittaja kysyi ohikulkijoilta, voittavat-**ko** oikeistopopulistit kunnallisvaalit.
reporter asked passers-by-ABL win-3PL-*kO* rightwing populists local elections-ACC
"The reporter asked passers-by if the rightwing populists will win the local elections."

It can induce both phrasal and head movement (Hakulinen, 1976; Hakulinen et al., 2004, cited in Huhmarniemi, 2012:78; Nevis, 1986). In the unmarked case, *-kO* attaches to the finite verb, auxiliary, or negation (a finite auxiliary in Finnish) that undergoes movement to sentence-initial position. In the marked case of question

[23] Contrary to what is standardly assumed in much of the descriptive literature on Finnish particles, *-kO* is not the Q-particle *per se* but rather syntactically equal to the focus particle *-kin* with an added *wh*-feature (Holmberg, 2014); cf. section 3.3.3.3 below.

focus, a constituent with narrow focus is fronted and the clitic attaches to it (Holmberg, 2014).

Unlike the three particles above, the focus particle *-kin* is not restricted to appearing in the left periphery (Holmberg, 2014). The basic meaning of *-kin* is 'also, too, even' (Karttunen and Karttunen, 1976 cited in Nevis, 1986:11), and with this meaning, the particle does not carry sentential scope. However, when *-kin* is associated with sentential scope, it has an additional textual function, attaches to the verb (Östman, 1977 cited in *ibid.*:11) and indicates something unexpected or something newly learned or under discussion, as in (19a) and (19b), respectively (Hakulinen and Karlsson, 1979; Hakulinen 1984a cited in *ibid.*:11):[24]

(19) a. Odotimme sadetta. Tuli-**kin** pouta.
expected-3PL rain-PART came-*kin* fine weather
"We were expecting rain. But the weather turned out fine."

[24] Worth noting here is how the placement of *-kin* relates to contrast. In (19a), the two sentences form a contrastive pair, while in (19b) they do not, the latter sentence confirming the expectation voiced in the former. In (19a), the verb with *–kin* attached has been fronted to express contrast, while in (19b) it remains in situ. It is predicted that the reverse state of affairs is infelicitous. This turns out to be correct:

i. # Odotimme sadetta. Pouta tuli-**kin.**
expected-3PL rain-PART fine weather came-*kin*
"We were expecting rain. But the weather turned out fine."

ii. # Odotimme sadetta. Tuli-**kin** sade.
expected-3PL rain-PART came-*kin* rain
"We were expecting rain. And rain it did."

Fronting the verb + *-kin* sequence in non-contrastive contexts, as in (ii), results in degraded acceptability; the same holds for leaving the verb + *-kin* sequence in situ in a contrastive context. Why this should hold in this case is not entirely clear: it is standardly assumed that movement for contrast in Finnish is optional, contrastive interpretation being possible in situ as well (Hollingsworth, 2014). As will appear from the examples in (21) below, one option is that in (19b) *-kin* functions as a marker of relative polarity, reinforcing the polarity of the QUD, as it does in (21b) and occupying a FocP or PolP. The obligatoriness of contrastive movement in (19a), though, remains an open question.

b. Odotimme sadetta. Sade tuli-**kin.**
expected-3PL rain-PART rain came-*kin*
"We were expecting rain. And rain it did."

(adapted from Nevis, 1986:11-12)

When *-kin* is used emphatically, it may appear attached to the phrase in the sentence-initial position as second position clitics do:

(20) Liisa on todellinen ystävä hädässä. Eilen-**kin** hän teki kaikki
Liisa is true friend need-INE yesterday-*kin* she did all
kotitehtäväni vaikka en edes pyytänyt.
homework-ACC-1SG.POSS though not-1SG even asked
"Liisa really is a true friend in need. Just yesterday she did all my homework though I didn't even ask."

(from Nevis, 1986:12)

-kAAn 'neither' is the negative counterpart of *-kin* and as such it appears in complementary distribution with *-kin* with respect to negative contexts (both clitics appear on the verb and cannot combine with the negative element). However, there are contexts under which the two clitics can form a contrastive pair. Consider (21):

(21) a. Eikö Swan-37 maksa-**kaan** 400 000mk?
not-Q Swan-37 cost-*kAAn* 400 000 marks
"The Swan-37 doesn't cost 400 000 Finnmarks, does it?"

b. Eikö Swan-37 maksa-**kin** 400 000mk?
not-Q Swan-37 cost-*kin* 400 000 marks
"The Swan-37 does cost 400 000 Finnmarks, doesn't it?"

(from Nevis, 1986:12)

As is apparent from the translation, the sentences carry different implicatures. Crucially, the utterances relate differently to the contextually salient assumption, or Question Under Discussion in Roberts's (1996) terminology; here this is about the

Swan-37[25] costing 400,000 Finnmarks. While (21b) implies that the presupposed proposition is correct, in (21a) it is implied that it is not correct. As such, the particles *–kin* and *–kAAn* here would seem to instantiate Farkas's (2010) notion of relative polarity: rather than concerning the absolute polarity of the asserted sentence – i.e. whether it is positive or negative in itself – relatively polarity concerns the relation of the asserted sentence to a proposition it is used as a response to. Of course, this cannot be generalized to the other functions of *-kin*/*-kAAn* discussed above. This is not surprising, though: cross-linguistically, polarity reversing particles are often instantiated by negative absolute polarity markers, and particles marking the sameness of relative polarity are often the same as positive absolute polarity markers (*ibid*.). An interesting further question here is whether the different uses of *-kin/-kAAn* are encoded in separate syntactic projections, such as FocP (as in Holmberg, 2014) and PolP. However, as the main focus here is on the second position clitics, that question will be left for another dissertation and time.

Finally, the particles *-s*, *-kA*, and *-mA* are more restricted in their distributions compared to the other particles, and are often reduced to footnotes in discussions of discourse particles. *-s* attaches to other clitic particles, such as *-pA* in the imperative (22a); it may also appear on a fronted wh-phrase (22b), but it cannot license movement to the edge alone (22c), and does not target contrastively focused elements (Huhmarniemi, 2012):

(22) a. Tule-**pa-s** tänne!
come.IMP-*pA*-*s* here
"Come on, come here!"

b. Mikä-**s** hänelle tuli?
what-*s* s/he.ALL came?
"What's wrong with him/her?"

c. Pekka oli kirjoista kiinnostunut.
Pekka was books-ELA interested
"Pekka was interested in books."

[25] A type of sailing boat

c’. * Kirjoista-s Pekka oli kiinnostunut.
books-ELA-*s* Pekka was interested

(from *ibid.*:78-79)

Due to its very restricted appearance, *-s* is generally not taken to be a true clitic, as it exhibits more affixal behaviour than the other particles based on Zwicky and Pullum’s criteria (1983 cited in Nevis, 1986:26-34). The meaning of *-s* is, once again, vague, but it has been associated with an informal register (Karttunen, 1975ac; Hakulinen and Karlsson, 1979 cited in *ibid.*:13).

The particle *-kA* is likewise very restricted in its distribution, attaching only to negation. This can either be a fronted negation in a matrix clause (23a), or a negation in a complement clause (23b), in which case the negation and *-kA* combination functions as a conjunction (Korhonen, 1993 cited in Huhmarniemi, 2012:79), being in complementary distribution with *ja* ‘and’ (Huhmarniemi, 2012):

(23) a. Et-**kä** tule!
not-2SG-*kA* come.IMP
“You are not coming!”

b. Pekka tuli toisiin ajatuksiin, ei-**kä** ostanut autoa.
Pekka came second-ILL thoughts-ILL not.3SG-*kA* bought car-PART
“Pekka had second thoughts and didn’t buy a/the car.”

(from *ibid*.:79)

A final particle is *-mA*, the use of which is strongly restricted to certain dialects (Penttilä, 1957 cited in Nevis, 1986:18). It appears sentence-initially, and is thus a second position clitic; however, its meaning is pronominal rather than that of a typical particle. The clitic is exemplified in (24), where it co-occurs with *-hAn*:

(24) Ajattelin, että otan-**ma-han** tuon, sillä muita-**kaan** en saa.
thought-1SG that take-1SG-*mA*-*hAn* that-ACC since others-PART-*kAAn* not-1SG get
“I thought I’d take that one, since I won’t be getting any others.”

(from *ibid*.)

Typical of discourse-related elements, the basic functions of the particles are very broad. I will discuss the pragmatic import of *-hAn* and *-pA* further in section 3.3.2 in the context of separate projections for speaker- and addressee-oriented elements. I now turn to their functions in non-declarative clauses.

3.2.2 Broadening the pragmatic horizons: particles across clause types

The particles are not restricted to a single clause type – aside from *-kO*, which can only appear in interrogatives for obvious semantic reasons – and their semantic or pragmatic import differs according to whether they occur in a declarative, interrogative, or imperative clause. What follows is a descriptive account of the particles in non-declarative contexts; what this implies syntactically will be discussed in chapter 5 with respect to the Response Layer.

-hAn, *-pA*, and *-kO* can all attach to a wh-phrase. Especially in the case of *-hAn*, a wh-phrase as the host of the particle further broadens its semantic and syntactic import, affecting both the general tone and syntactic properties of the sentence (Huhmarniemi, 2012).

According to Huhmarniemi when *-hAn* attaches to a wh-phrase, the interpretation of the sentence changes from an interrogative to a rhetorical question[26] or request. This is in line with Zimmermann's (2011) observation that discourse particles trigger indirect speech acts in certain linguistic environments (see also Bayer and Obenauer, 2011). These interpretations are illustrated in (25):

(25) Mikä-**hän** Villen vaalikampanjan pääteesi on?
What-*hAn* Ville-GEN election campaign-GEN main thesis is
"What is the main thesis of Ville's election campaign (I wonder)?"
"I would like to know/ could you tell me what the main thesis of Ville's election campaign is."

[26] Huhmarniemi uses the term 'indirect question' here. However, the relevant examples do not correspond to indirect questions in standard terminology and are better described as rhetorical or conjectural questions – I will return to the latter question type in more detail in section 5.2.

The presence of *-hAn* also affects the selectional properties of the containing sentence. An interrogative complement with *-hAn* cannot be selected directly, now requiring the presence of complementizer *että* 'that', as in (26):

(26) Peetu miettii kovasti, *?(että) mikä-**hän** Villen vaalikampanjan pääteesi
Peetu wonders hard that what-*hAn* Ville-GEN election campaign-GEN main thesis on.
is
"Peetu is racking his brains about what the main thesis of Ville's election campaign might be."

Why an overt complementizer is required remains unclear. A potential factor at play here is the notion of D-linking (Pesetsky, 1987, 2000). D-linked elements are typical of contexts where, for example, "the answers to the question are supposed to be drawn from a set of individuals previously introduced into the discourse, or when the set forms part of the "common ground" shared by speaker and hearer" (Pesetsky, 2000:23); as such, *-hAn*-marked phrases resemble the instances of D-linking discussed in the literature. Furthermore, Cinque (1999), for instance, takes D-linking to be the relevant factor in determining the extraction possibilities of wh-phrases, so that the nature of *-hAn*-marked wh-elements as D-linked could well be relevant in understanding the need of an overt complementizer. However, D-linking would not seem to be formally encoded in Finnish syntax in general (Hollingsworth, 2014): Finnish does not have a specific D-linked wh-phrase, and wh-phrases behave identically with respect to extraction irrespective of their D-linking status. Another possible parallel is offered by Mainland Scandinavian and Icelandic V2 structures: here, an overt C is required in cases where main clause-like V2 may occur in the embedded clause (Vikner, 1995). Of course, Finnish is not a V2 language, but the same correlation between allowing embedded main clause phenomena and the obligatory presence of a complementizer is one not to be dismissed. The obligatory presence of *että* here remains an open question for now; I will return to the question of discourse particles in embedded contexts in the next chapter.

-pA carries a similar softening effect to *-hAn* when it attaches to wh-words. This echoes the widely observed function of discourse particles as supporting the

expression of paralinguistic categories, such as politeness, as noted by Zimmermann (2011). Furthermore, Huhmarniemi (2012) argues that the main use of *-pA* relating to exclamation is not available when it associates with a wh-phrase. This is illustrated by the contrast in (27):

(27) a. Mitä-**pä** Pekka osti?
what-*pA* Pekka bought
"Tell me, what did Pekka buy?"

b. # Mitä-**pä** Pekka osti!
what-*pA* Pekka bought

(from *ibid.*:84)

However, the lack of exclamative force cannot be generalized to all cases of *-pA* attaching to wh-elements. Consider (28):

(28) Kuka-**pa** olisi veikannut, että Keskusta kokee vaalitappion?/!
who-*pA* would.have guessed that the Centre Party experiences election loss-ACC
"Who would have thought that the Centre Party would face election loss?/!"

Here, the sentence can very well be used as an exclamative expressing surprise. The effect can be argued to be softer than in the canonical cases of *-pA* attaching to non-wh-elements. It would seem, then, that there need not be any fundamental distinction between the uses of *-pA* on wh- and non-wh-elements, contra Huhmarniemi. Furthermore, (28) can carry a rhetorical question interpretation; this is expected, given certain affinities between wh-exclamatives and rhetorical questions, to which I return in chapter 5.

Unlike *-hAn*, inserting *-pA* in an interrogative complement results in degraded acceptability, whether or not it is preceded by an overt complementizer:

(29) *? Peetu ihmetteli, ∅/ että kuka-**pa** olisi veikannut, että Keskusta
Peetu wondered that who-*pA* would.have guessed that the Centre Party
kokee vaalitappion.
experiences election loss-ACC
"Peetu wondered who would have thought that the Centre Party would face election loss."

As for *-kO*, its co-occurrence with a wh-phrase is restricted to echo questions:

(30) Miksi-**kö** vaaleissa vältellään omantunnonkysymyksiä?
why-*kO* election-ILL avoid questions of conscience-PART
"Why does one avoid questions of conscience in the elections? (You ask)"

Cross-linguistically, the co-occurrence of otherwise declarative discourse markers with wh-phrases is in no way rare. For example, when the German discourse marker *denn* occurs adjacent to a wh-phrase, the construction signals extra emphasis (Bayer, 2010). As such, the observation that discourse particles may provide additional meanings and tones to wh-phrases as well is in no way surprising; however, this association may also induce additional syntactic effects, as in the case of *-hAn* and the complementizer, thus highlighting the formal properties of the particles.

-hAn and *-pA* can also attach to imperatives, in which case they soften the interpretation:

(31) Lue-**han** jo kokousmuistiinpanot!
read-*hAn* already meeting minutes
"Read the minutes from the meeting already!"

(32) Lue-**pa** äkkiä kokousmuistiinpanot!
read-*pA* quickly meeting minutes
"Quick, read the minutes from the meeting!"

There are no selectional or other effects to be observed as in the case of *-hAn* and interrogative complement clauses.

Also *-kin*/*-kAAn* and *-kA* can attach to imperatives; they cannot occur on wh-phrases. Here, *-kin* has a reverse polarity or an emphatic function, as in (33a), and *-kAAn* shows the reverse polarity function on negative imperatives, as in (33b).

(33) a. Lue-**kin** ne äkkiä!
read-*kin* they fast
"Make sure you read them fast!"
"Read them fast after all!"

b. Älä lue-**kaan** niitä!
NEG read-*kAAn* them-PART
"Don't read them after all!"

The polarity reversal interpretation implies in (33a) that the preceding context has required the addressee not to read the relevant material, while in (33b) the addressee would have been ordered to do the reading, and the imperatives order the addressee to act differently from what has been assumed in the preceding context.

-kA in imperative contexts can have an emphatic interpretation, or just function in its standard additive function, as in (34):

(34) Älä-**kä** tee sitä!
NEG-*kA* do it
"Don't you dare do it!"
"… and don't do it! (in addition to other things)"

-s continues to mark an informal register both attached to *wh*-words and in imperatives. These are the only contexts in which *-s* need not attach to another particle:

(35) a. Mitä-**s** Pekka tuumaa?
what-*s* Pekka thinks
"What does Pekka think, I wonder?"

b. Tule-**s** tänne.
come-*s* here
"Come here."

It function remains the same, i.e. it marks an informal register.

The uses of the discourse particles across declaratives, interrogatives, and imperatives is consistent in the sense that there are no clearly discernible differences in their semantics and pragmatics across the clause types. The semantic and pragmatic import of the particles is summarized below in Table 1.

	Basic meaning	**Imperatives**	**wh-phrases**
-hAn	appealing to the listener, mitigating an expression, explicating what was said before, amelioration, contradiction, new discovery, reminder of a new truth or familiar information, meaning shared by the interlocutors	softening	change from interrogative to rhetorical question or request
-pA	emphasis marker, exclamative force, interpersonal mitigator, hortative addition to an imperative, certainty, something just observed, intensity in rhetorical questions, 'you see' at the beginning of stories, concessive meaning, contradiction	softening	change from interrogative to rhetorical question, softening
-kO	interrogative marker	NA	echo questions
-s	informal register	informal register	informal register
-kin	also, too, even; unexpectedness, something newly learned	emphatic function, polarity reversal	NA
-kAAn	negative counterpart of *-kin*	polarity reversal	
-mA	pronominal use in dialects	NA	NA
-kA	attaches to negation; emphatic function on fronted negation, otherwise negative counterpart of *ja* ('and')	additive (counterpart of *ja*), emphatic function	NA

Table 1. The semantics and pragmatics of Finnish discourse particles

3.3 Structures

Despite their seemingly vague meanings and interaction with paralinguistic categories, the conclusion that the Finnish discourse particles are encoded in the syntax is supported by observations pertaining to their structural properties. Section 3.3.1 offers the standard analysis of the particles as a second position phenomenon. I will then show that this picture cannot be complete based on the particles' co-occurrence possibilities and restrictions. What emerges is an analysis of the particles as speaker- and addressee-oriented elements in the Grounding Layer, calling for a rethinking of the Finnish left periphery in terms of the USH; the Response Layer and a more thorough discussion of the particles' uses in non-declarative sentences will be postponed until chapter 5.

3.3.1 Finnish second position clitics – a syntactic overview

The particles *-hAn*, *-pA*, and *-kO* are a manifestation of Wackernagel's Law in action: they always appear enclitic to the first constituent of the sentence; hence their name *second position clitics* (Nevis, 1986). They typically attach to the last word of the initially positioned constituent, but there are certain contexts in which they may attach to a non-final element. First, when a relative clause follows its head, the particle attaches to the head rather than the relative clause:

(36) a. Vanha mies-**hän**, joka saapui eilen…
old man-*hAn* who arrived yesterday
"The old man, who arrived yesterday…"

b. * Vanha mies, joka saapui eilen-**hän**…
old man who arrived yesterday-*hAn*

(adapted from *ibid.*:19)

This is expected given considerations of syntactic weight and general sentence processing. In purely formal terms, this is not as straightforward as it involves the particle attaching to a non-phrasal constituent. This is also the case with NP

constructions involving a wh-pronoun, where the particle attaches to the wh-pronoun rather than the head noun, as in (37):

(37) Missä-**hän** maassa?
where-*hAn* country-INE
"In which country, I wonder"

(from *ibid.*:19)

Nevis takes this to be an instance of topicalization, mirroring the contrast in (38):

(38) a. Uuden auton-**han** hän osti.
new-ACC car-ACC-*hAn* s/he bought
"It was a new car s/he bought (and not a motorbike)."

b. Uuden-**han** auton hän osti,
new-ACC-*hAn* car s/he bought
"It was a new car s/he bought (and not an old one)."

(from *ibid.*:20)

Here, Nevis assumes that in (38b), the adjective *uuden* has undergone topicalization to precede the particle, and that the wh-pronoun in (37) undergoes a similar process. However, based on the interpretations of the sentences as well as the uses of *-hAn* discussed in section 3.2, the movement would seem to be better captured through the notions of focus or contrast. This would also draw an actual parallel with wh-movement, i.e. a type of focus movement, not topicalization. I will return to these cases in section 3.3.3.3, arguing, very much contra Nevis, that focus is the key notion at play here. For this stage of the discussion, it is sufficient to take *-hAn* and *-pA* as second position clitics, with some exceptions to be dealt with later on.

The Finnish left periphery has typically been assumed to be rather sparse in terms of projections. Standard analyses posit spec,CP as the host for a broad range of elements

– contra a cartographic analysis (Rizzi, 1997) – including second-position clitics, wh-phrases, and contrastive topics and foci (Vilkuna, 1995).[27] This is summarized below:

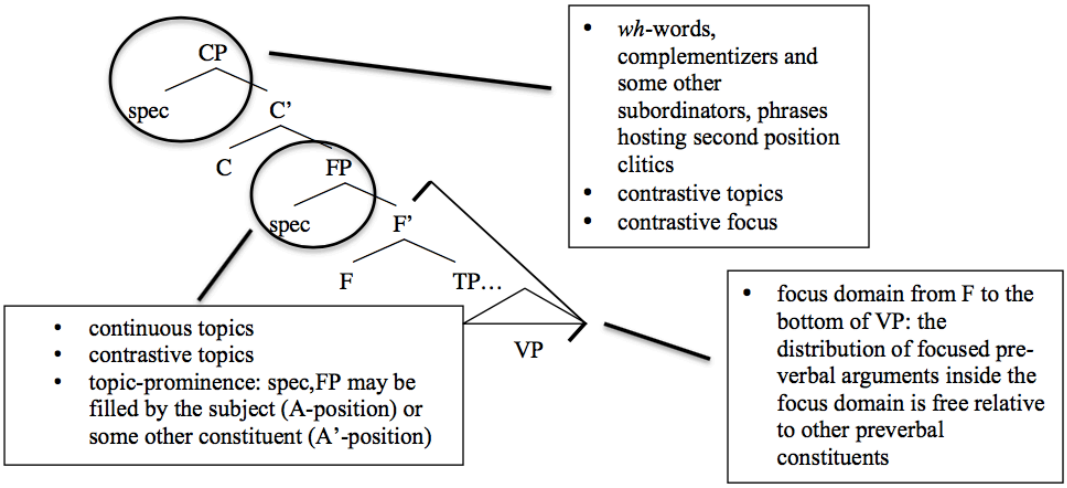


Figure 1. Discourse-related syntax in Finnish

However, this picture is elaborated by considerations of what triggers the movement of the different elements into the C domain.

Huhmarniemi (2012) argues that the trigger for the movement of particle-hosting phrases is the feature [force]. Evidence for this comes from the observation that the particles that encode 'tone' alone in her terminology, i.e. that only affect pragmatic interpretation, such as *-s*, do not induce movement.[28] [force] is an obligatory movement trigger and is associated with the relevant particles and wh-phrases. It does not appear on contrastive elements: contrastive movement into sentence-initial position is optional, as contrast can also be realized in situ through prosody alone. Instead, contrast-related movement is triggered optionally by a [focus] feature.

[27] There are recent exceptions, although they are not as widely accepted as the basis for discussions of Finnish syntax as the rather sparse C domain approach: Kaiser (2006), for instance, argues for a KontrastP hosting contrastive elements, and Palomäki (2016) posits a ForceP. I will return to the latter imminently below.

[28] As was argued in chapter 2, why this should be the case is conceptually unclear. According to approaches such as the USH, purely pragmatic elements can induce syntactic effects just as traditionally grammatical ones do.

While the analysis of contrastive movement as triggered by the feature [focus] faces the issue of optionality in syntax, associating the Finnish discourse particles with [force] unifies movement to the left periphery in an appealing way, and would seem to also receive cross-linguistic support. Bayer (2012), for example, notes that German *denn* carries an unvalued interrogative force feature [uQForce], even if the feature does not induce movement.

The idea of discourse particles being related to [force] is further fleshed out in Palomäki's (2016) analysis of *-hAn*. Elaborating the classic unarticulated CP domain, she argues for a ForceP[29] in the Finnish left periphery, where *-hAn* appears. The need for an additional ForceP projection is based on the observation that *-hAn* must surface higher than FP in the clause, but that it must be lower than CP, as well as arguments from its co-occurrence with wh-words. The first argument is evident from the above discussion on the behaviour of the particles as second position clitics. That *-hAn*-marked constituents appear higher than F is further shown by the fact that the particles cannot attach to negation when the negation is not sentence-initial:

(39) a. Ei-**hän** isosiskoni ostanut koiraa.
not.3SG-*hAn* big sister-1SG.POSS bought dog-PART
"My big sister didn't buy a dog."

b. * Isosiskoni ei-**hän** ostanut koiraa.
big sister-1SG.POSS not.3SG-*hAn* bought dog-PART

(from *ibid*.:104)

As the negative element in Finnish is assumed to move to F to check its phi-features,

[29] Palomäki does not use ForceP in the standard cartographic sense here, i.e. as the highest projection in the CP domain. Rather, here CP is still maintained as the highest phrase of the clause, and ForceP is a separate functional projection under it, which may be merged into the structure with or without an uninterpretable feature attracting an XP to its specifier. Palomäki leaves the nature of the feature unspecified. The state of affairs is obviously theoretically less than clear-cut, but as I am concerned only with the crux of the argument, i.e. that an additional projection is needed for the second position clitics, I will not take further issue with the theoretical assumptions in Palomäki's analysis.

the ungrammaticality of (39b) – in contrast to the grammatical (39a) where the negation has been fronted – shows that *-hAn* must also be higher in the structure.

Second, that *-hAn* cannot occupy CP is shown by the fact that it cannot attach to complementizers; this is the only case when the particle does not appear in second position. Consider (40):

(40) * Hän väitti, että-**hän** Minna osti koiran.
s/he claimed that-*hAn* Minna bought dog-ACC
Intended reading: "S/he claimed that Minna bought a dog."
(from *ibid.*:107)

Palomäki concludes that there must be a functional projection between FP and CP. She takes the projection to be ForceP, arguing that when there is a wh-element present in the clause, *-hAn* must attach to this and no other element can host it.

(41) a. Mitä-**hän** isosiskoni osti?
what-*hAn* big sister-1SG.POSS bought
"What did my big sister buy? (I wonder)"

b.* Mitä isosiskoni-**han** osti?
what big sister-1SG.POSS-*hAn* bought
(from *ibid.*:105)

Lopez (2009 in *ibid.*:105) argues that whPs in Finnish occupy ForceP,[30] which Palomäki takes to support the idea that *-hAn* also appears there.

[30] Lopez bases this on the observation that wh-elements can be preceded by a complementizer – assumed to occupy CP – in Finnish:

(i) Maija kysyi, että mitä Pekka oli syönyt.
Maija asked that what Pekka had eaten
"Maija asked what Pekka had eaten."
(from Vainikka, 1989 cited in Palomäki, 2016:106)

This conclusion is not as straightforward as Palomäki presents, though: while the need for an additional projection is clear, the wh-element data do not necessarily mean that the projection for *-hAn* ought to be ForceP. The same observations pertain independently of what exactly is fronted: for example, if a phrase is fronted for contrast, a potential *-hAn* will appear on this. Wh-words – and through them ForceP – are in no way unique here. Following Palomäki's logic, it would in principle be equally possible to argue that *-hAn* appears in a projection dedicated to contrast (such as Kaiser's (2006) KontrastP as noted in footnote 27), if instead of wh-words one looked at *-hAn* on elements that have undergone fronting for contrast. Whether or not there is a KontrastP in Finnish is not at issue here: rather, the point is that the logic in Palomäki's argument is far from flawless and that there is scope for further considerations regarding the actual position of the discourse particles. Of course, there may be a ForceP as a shorthand for a more elaborate structure, but a unitary projection as Palomäki seems to assume is too simplistic a solution.

What is clear from Huhmarniemi's (2012) and Palomäki's (2016) discussions is that the Finnish C domain needs to be refined in terms of projections, whether or not the discourse particles are related to [force] and ForceP. Further clues as to the nature of the features and projections relating to the particles come from their behaviour regarding their co-occurrence possibilities with each other.

3.3.2 Co-occurring clitics and speaker and addressee orientation

In general, only one particle of each type is allowed inside a clause (Hakulinen and Karlsson, 1979 in Huhmarniemi, 2012:80), but different particles may also be stacked on a fronted constituent under certain conditions (Huhmarniemi, 2012).[31] Huhmarniemi summarizes the possible clitic combinations in Table 2. The table lacks glosses for each individual item, as the interpretation of the particles is crucially context-dependent, making translations in this case impossible.

[31] This is in no way unique to Finnish. For example, certain Japanese sentence-final particles can co-occur, as will be discussed below. Mandarin Chinese, in turn, has three classes of sentence-final particles: while particles in the same class are in complementary distribution, particles from different classes can appear in the same sentence in a fixed order (Paul, 2015; Erlewine, 2017).

Plain DP	Merja				*-hAn*		Merjahan
	Merja		*-kO*		*-hAn*		Merjako, Merjakohan
	Merja			*-pA*	*-hAn*		Merjapa, Merjapahan
	Merja			*-pA*		*-s*	Merjapa, Merjapas
	Merja		*-kO*			*-s*	Merjako, Merjakos
Auxiliary/	on				*-hAn*		onhan
main verb	on		*-kO*		*-hAn*		onko, onkohan
'is'	on			*-pA*	*-hAn*		onpa, onpahan
	on			*-pA*		*-s*	onpa, onpas
	on		*-kO*			*-s*	onko, onkos
Negation	ei				*-hAn*		eihän
'not'	ei		*-kO*		*-hAn*		eikö, eiköhän
	ei			*-pA*	*-hAn*		eipä, eipähän
	ei			*-pA*		*-s*	eipä, eipäs
	ei		*-kO*			*-s*	eikö, eikös
	ei	*-kA*			*-hAn*		eikä, eikähän
	ei	*-kA*		*-pA*	*-hAn*		eikäpä, eikäpähän
Imperative	tule				*-hAn*		tulehan
verb	tule			*-pA*		*-s*	tulepa, tulepas
'come.IMP'	tule					*-s*	tules
Adverbial	silloin				*-hAn*		silloinhan
'then'	silloin		*-kO*		*-hAn*		silloinko, silloinkohan
	silloin			*-pA*	*-hAn*		silloinpa, silloinpahan
	silloin			*-pA*		*-s*	silloinpa, silloinpas
	silloin		*-kO*			*-s*	silloinko, silloinkos
Conjunctions	koska			*-pA*	*-hAn*		koskapa, ?koskapahan
'because,	vaikka			*-pA*			vaikkapa
although, if'	jos			*-pA*	*-hAn*		jospa, jospahan
	jos			*-pA*		*-s*	jospa, jospas
	jos		*-kO*				josko
Other words	ehkä			*-pA*			ehkäpä
'maybe'							

Table 2. Possible clitic combinations in Finnish

What emerges from the table as a crucial observation for Finnish particle syntax and general left-peripheral structure are two co-occurrence restrictions: the particles *-kO* and *-pA*, on the one hand, and *-hAn* and *-s*, on the other, cannot co-occur. Huhmarniemi takes this as evidence that *-kO* and *-pA* both express different values of the feature [force]: interrogative in the case of *-kO* and perhaps exclamative in the case of *-pA*.[32] Also *-hAn* and *-s* are argued to express different values of one feature; Huhmarniemi does not elaborate on what this feature might be.

Another avenue to understanding the co-occurrence restrictions – and the Finnish left periphery in general – is to analyze the particles in terms of speaker and addressee orientation (S and A orientation). The USH (see Heim, Keupdijo, Lam, Osa-Gómez

[32] Huhmarniemi does not specify the feature value of *-pA* in her discussion.

and Wiltschko, 2014; Lam, 2014; Heim and Wiltschko, 2016; Wiltschko, 2017) – along with many other approaches, as outlined in the previous chapter – incorporates an additional Grounding Layer above CP with separate projections for S- and A-oriented material (in addition to an even higher Response Layer, of course, but discussion on this is saved for chapter 5). An analysis in these terms has the potential of clarifying the shared features Huhmarniemi suggests, while capitalizing on the general, intuitive idea that discourse particles in general express the speaker's attitude towards the proposition under discussion (Thoma, 2014). According to Thoma, this captures S particles as such, while A-oriented particles additionally express the speaker's assumption about the addressee's attitude towards the proposition: A orientation is thus always mediated through the speaker.[33] In practice, this means that A-oriented particles are felicitous in contexts where the speaker assumes that the addressee holds some prior belief about the proposition, or that the addressee does not have a prior belief; crucially, the speaker has to assume something about the addressee's belief state, as will become apparent in the examples below.[34]

This type of approach goes some way in capturing the wide array of pragmatic effects associated with the particles *-pA* and *-hAn*. Drawing on the basic meanings of the particles summarized in Table 1 in section 3.2.2, *-pA* would appear to be more S-oriented and *-hAn* more A-oriented. This observation finds support from contextual tests proposed by Thoma (2014) to distinguish between the orientations. However, typical of discourse-related considerations in general – and unfortunate for any attempts at clear-cut empirical evidence – the tests do not provide hard and fast evidence for the nature of the particles as manifesting one or the other orientation; but they do provide support for the initial impression of their nature.

If the characterization of *-hAn* as A-oriented is on the right track, it is expected to be felicitous in situations where the addressee is assumed to hold some belief about the

[33] This reflects Woods's (2014) intuition discussed in the previous chapter.

[34] Defining A orientation this way makes it a Theory of Mind issue, which, in turn, makes interesting empirical predictions with respect to acquisition: for example, populations without a fully developed Theory of Mind are predicted to show difficulties with A-oriented particles but not S-oriented ones. Now, this is very much outside the realm of the discussion here, but it does offer psycholinguists hypotheses to test, and I return to this point briefly in Chapter 7.

proposition expressed, and infelicitous in situations where no such assumption is made. For example, *-hAn* is felicitous when it is clear from the context that the relevant proposition is known to both the speaker and the addressee. Consider (42):

(42) Flatmates Nadia and Aleksei are chilling out in their kitchen. Nadia tells Aleksei she won't be around for dinner that evening, as she will be going to a meeting with her anti-animal abuse group. Aleksei sets the table for two.

a. Aleksei: Tein meille pad thaita.
made-1SG we-ALL pad thai-PART
"I made us pad thai."

b. Nadia: Mutta minulla-**han** ei ole aikaa syödä.
but I-ADE-*hAn* not.3SG be time-PART eat
"But I won't have time to eat (as you should know)."

Here, Nadia's response in (42b) with *-hAn* is felicitous, as she can reasonably assume that the proposition that she won't have time for dinner is known to Aleksei.

-hAn is also felicitous in situations where the speaker wants to check information they believe the addressee knows. This is apparent from (43):

(43) Nadia is handing out leaflets at an anti-animal abuse campaign event. One of the people she approaches is a colleague of her mother's who has never met her before. However, the family resemblance is striking, and the colleague says to Nadia:

a. Sinä-**hän** olet Valerian tytär.
you-*hAn* are Valeria-GEN daughter
"You must be Valeria's daughter."

-hAn is felicitous here, as expected if it is an A-oriented particle.

Finally, the nature of *-hAn* as A-oriented is particularly clear from the contrast between (44) and (45). In the first situation, Nadia's cousin has no reason to believe that Nadia knows the answer, i.e. she holds a belief about the proposition she answers with. In (45), on the other hand, Niko can reasonably assume that Nadia is not totally ignorant of the answer.

(44) Nadia is visiting her cousin in St Petersburg for the first time. In preparation for the trip, she asks her cousin for directions from the train station to her flat:

Nadia: Miten pääsen rautatieasemalta kämpällesi?
how get-1SG train station-ABL flat-ALL- 2SG.POSS
"How do I get from the train station to your flat?"

Cousin: a. # Metrolla-**han** pääset tänne suoraan.
metro-ADE-*hAn* get-2SG here directly

b. Metrolla pääset tänne suoraan.
metro-ADE get-2SG here directly
"You can get here directly on the underground."

(45) Nadia is going to meet her anti-animal abuse group in her hometown and asks her friend Niko for directions. Niko knows Nadia has been using the town's public transport for years.

Nadia: Miten pääsen tapaamispaikalle?
how get-1SG meeting place-ALL
"How do I get to the meeting place?"

Niko: a. Metrolla-**han** pääset sinne suoraan.
metro-ADE-*hAn* get-2SG there directly
"You can get there directly on the metro (and you should know that)."

b. Metrolla pääset sinne suoraan.
metro-ADE get-2SG there directly
"You can get there directly on the metro."

-hAn would hence appear to be closely related to what assumptions the addressee may hold about the proposition, and not to the speaker's attitude alone.

Testing for the absence of any assumptions pertaining to the addressee's knowledge of the proposition being communicated is trickier, as contexts can be very open-ended and permit the use of allegedly both S- and A-oriented particles. However, even in these cases the interpretations associated with the use of each particle can shed light on the orientation question. Thoma argues that in the Miesbach Bavarian dialect of German the particle *ja* is S-oriented, noting that it can occur, among other things, in exclamatives encoding the speaker's surprise. *-pA* is very similar in this respect. Consider (46), a situation devised by Thoma to test the use of *ja*:

(46) Aleksei comes out of the bathroom with his zipper open. Nadia notices this.

a. Sinulla-**pa** taitaa olla vetoketju auki!
you-ADE-*pA* seems be zipper open
"Looks like your zipper is down! (and I assume you haven't noticed it)"

b. Sinulla-**han** taitaa olla vetoketju auki!
you-ADE-*hAn* seems be zipper open
"Looks like your zipper is down! (and I assume you know that, but I need to point it out)"

Both *-pA* and *-hAn* are felicitous in this context. However, in (46a) with *-pA*, it is implied that Nadia assumes that Aleksei is not aware of his zipper being down, i.e. that Aleksei does not hold a belief about the situation, in accordance with Thoma's characterization of S orientation. In (46b), on the other hand, the implication is, in accordance with A orientation, that Aleksei knows about the zipper situation, and that Nadia is wondering about the unusual state of affairs and Aleksei's reasons for opting for the look.

That different particles can appear in similar grammatical and pragmatic contexts is expected: Thoma notes with respect to German that the clause type, illocutionary

force, and syntactic form of a sentence can all conspire to make a sentence suitable for either S- or A-oriented particles, meaning that in many cases the contexts overlap. What is crucial here, then, is not the fact that *-pA* and *-hAn* can appear in the same context in (46) but rather that their pragmatic imports can be seen to differ in terms of S and A orientation even in the same context.

However, Table 1 suggests that in some cases the particles' functions do overlap: both *-hAn* and *-pA* have a softening effect in imperatives (and in interrogatives for *-pA*) and both can express contradiction. For the latter case, a possible solution is that the particles may express contradiction in subtly different ways consistent with their A- or S-oriented nature. Contradiction can either be a contrary view on the topic of discussion, in which case it is more S-oriented, or it can mark disagreement with the addressee's view, in which case it is more A-oriented. This would seem to hold with respect to the Finnish particles. Consider the example in (47):

(47) Toi oli kyllä ihan paras elokuva!
that was yes EMPH best film
"That was such a good film!"

a. Ei-**hän** ollut.
not.3SG-*hAn* been
"No, it wasn't."

b. ?# Ei-**pä** ollut.
not.3SG-*pA* been
"No, it wasn't."

The context clearly expresses a subjective view, and any reaction to the initial utterance is naturally interpreted as a reaction to the addressee's view rather than to a more objective topic of discussion. The more felicitous option to contradict the view is to use the particle *-hAn* as in (47a) rather than *-pA* as in (47b), in accordance with the A orientation of *-hAn*. The other option, showing contradiction with the topic of discussion in a more S-oriented way, cannot be shown as clearly; any statement in natural conversation can be ultimately interpreted as the speaker expressing their view

on the topic, making most contexts that are not clearly expressions of subjective views, like (47), ambiguous between S- and A-oriented contradiction. However, (47) suffices to show that there is a difference between the contradiction expressed by *-hAn* and *-pA*, and this is consistent with the A and S orientation hypothesis.

A similar distinction does not hold for the softening effect in imperatives, however. In principle, commands and requests expressed by imperative utterances can be either more A- or S-focused: the first type is more face-oriented, minimizing the effect on the addressee. S-focused commands, on the other hand, merely focus on the speaker's need to achieve their purpose by uttering the imperative with no consideration of the inconvenience this may pose on the addressee. As argued above, *-hAn* and *-pA* do not differ in respect, both expressing softening, and through that, a more face-saving function. Consider the contrast in (48):

(48) a. Lopeta lihan syöminen!
stop meat-GEN eating

b. Lopeta-**han** lihan syöminen!
stop-*hAn* meat-GEN eating

c. Lopeta-**pa** lihan syöminen
stop-*pA* meat-GEN eating
"Stop eating meat!"

All the imperatives in (48a-c) express the command to stop eating meat. However, (48b) with *-hAn* and (48c) with *-pA* both express a hedged, softer version of the command. This is particularly clear if the utterances are imagined in the context of an anti-animal abuse rally, for example, where shouting out (48a) is felicitous, but the versions with the particles sound desperately out of place in being too soft. Hence, instead of their specific A- and S-oriented functions, in imperatives *-hAn* and *-pA* have the same softening effect. This can be derived through basic Gricean reasoning. For example, from Horn's (1984) R Principle ("Make your contribution necessary; say no more than you must (given Q)") and Q Principle ("Make your contribution sufficient; say as much as you can (given R)"), it follows that using a more marked

expression – here, a particle – when a less marked version is available – a particle-less imperative – conveys a more marked message – here, softening. Thus, the A and S orientation of *-hAn* and *-pA* does not come through in all contexts, and in imperatives their interpretation is rather derived through general pragmatic reasoning.

Overall, however, associating *-hAn* with A orientation and *-pA* with S orientation is pragmatically motivated. Syntactically, the association of *-hAn* with the addressee and *-pA* with the speaker supports the idea of separate speaker- and addressee-related projections; projected separately, these particles would not be competing for the same position, and could thus co-occur, context allowing. The following section proposes a first stage of an elaboration of the Finnish left periphery in terms of the USH and the Grounding Layer (the second stage in chapter 5 introducing the Response Layer), incorporating speakers and addressees in specific projections.

3.3.3 Syntacticizing speakers and addressees

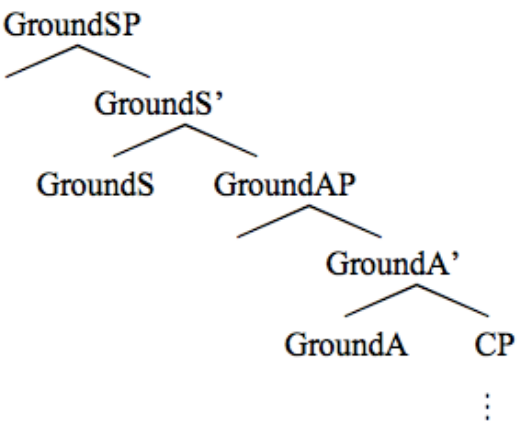
To capture the S and A orientation syntactically, I will adopt the USH. As discussed above, it allows contextual information to enter the computation of the meaning of units of language: context dependency is a crucial characteristic in the interpretation of the Finnish particles. The USH also does away with a strictly cartographic structure, which fits the Finnish facts. In order to determine how exactly the Finnish particles might function in a USH framework, their ordering, base position, and relation to other elements in the structure have to be tackled. In section 3.3.3.1 I will make a first pass at an ordering of the particles; this is mainly for expository purposes, though, as the following discussion of different base generation hypotheses will require other ordering assumptions to be made. Section 3.3.3.2 discusses scope evidence for the particles' placement in a layer – the Grounding Layer – above CP. Finally, in section 3.3.3.3 I consider two hypotheses about the base position of the particles.

3.3.3.1 Me before you?

Thoma (2016) argues – contra Hill (2007) in chapter 2 – that there is no semantic reason for a certain participant orientation to be encoded higher in the structure than another; rather, the specific orderings are purely syntactic in that they arise from the hierarchy of heads they associate with. This implies that the ordering of the projections can be a point of cross-linguistic variation, and thus forms a question to be probed empirically. Already from a cursory glance at the data described in the literature, it emerges that there is at least superficial order variation across languages. Haegeman and Hill (2013), Heim, Keupdijo, Lam, Osa-Gómez and Wiltschko (2014), Lam (2014), Thoma (2016), and Wiltschko (2017) all argue that the addressee-related projection dominates the speaker-related one. On the other hand, Hill (2007 cited in *ibid*.:294ff.) and Haegeman and Hill (2013 cited in *ibid*.:294ff.) argue for speaker over addressee ordering, based on co-occurrence restrictions of Romanian and West Flemish particles.

Given the surface order of the Finnish particles, I assume as an initial hypothesis that the speaker projection is higher in the structure than the addressee projection. As is apparent from Table 2, the S-oriented *-pA* always precedes the A-oriented *-hAn* when the two co-occur. I will adopt Thoma's (2016) terminology and dub the projections GroundS and GroundA, respectively. (49) is a first sketch of the emerging structure:

(49)



I will assume this structure for expository purposes for now, although I will return to it imminently in section 3.3.3.3 below, where crucial considerations such as the Mirror Principle and the particles' base position are taken into account.

3.3.3.2 Layering up – evidence from scope

However, as Thoma (2016) notes, the linear order of the particles is not sufficient to determine their structural position. Rather, their relation to other elements must also be taken into account. I will consider this in more detail with respect to other discourse elements in the following chapter where I make the argument for a significant divide between the CP and higher speech act-related projections; here, I will discuss the particles' behaviour with respect to scope to show that they occupy a position above CP, rather than CP itself, as is traditionally assumed.

Evidence here comes from the interaction between the particles and different types of adverbs. First, I will show that the Finnish particles follow speech act (SA) adverbs; I will then argue that they precede sentence adverbs. This provides evidence for their position in a layer higher than CP.

Thoma argues that Miesbach Bavarian discourse particles are in the scope of SA adverbs, and hence are lower than them in hierarchical structure. SA adverbs modify the speech act, and as such can be argued to attach to the Grounding Layer; if they attach specifically to the highest projection there, they will outscope other elements in that layer, including discourse particles. This is shown in (50) with respect to the A-oriented particle *fei* – the contribution of which can be roughly represented as 'I don't believe that you believe p' ('p' standing for the proposition expressed) – and the SA adverb *ealich gsogt* 'honestly said':

(50) Hanni tells her husband that dinner is ready. He says he's not hungry. She then turns to her son Hansi:

Hanni: Mogst DU wenigtens wos essn? Jetz koch I scho seid'a Stund.
"Do YOU at least want to eat something? I've been cooking for an hour now."

Hansi: I mog **fei** ealich gsogt aa nix.
I want *fei* honestly said also nothing
a. "[I say honestly that [you don't believe that]] I am also not hungry."
b. * "[You don't believe that [I say honestly that]] I am also not hungry."
(from *ibid*.:278)

Here, *ealich gsogt* has to be interpreted outside the scope of *fei*, as in (50a); the reverse scope in (50b) is not available.

The same holds with respect to the S-oriented particle *ja* 'I believe p':

(51) Two friends are having a conversation about vacation time vs. payout of the time. One says he prefers money. The other responds:

I häd **ja** ealich gsogt liaba mehra Urlaub wia Gäid.
I had *ja* honestly said rather more vacation than money
a. "I say honestly that [I believe that] I'd rather have more vacation than money."
b. * "[I believe that] I say honestly that I'd rather have more vacation than money."
(from *ibid*.:279)

Again, the adverb *ealich gsogt* must outscope *ja*.

The same scope facts hold for Finnish. (52) shows that the SA adverb *rehellisesti sanottuna* 'honestly speaking' outscopes the A-oriented *-hAn*. The context is set up so that Nadia has every reason to believe that her mother holds a prior belief about the

proposition she is expressing, hence justifying the use of *-hAn*. In the infelicitous gloss (52b), the particle scopes over the SA adverb, while the reverse scope in (52a) is felicitous.

(52) Under the influence of her anti-animal abuse action group, Nadia has recently become vegan. She has spent a lot of time making her newly found conviction clear to her family. One night, her mother has prepared an old family favourite, foie gras, for dinner. She offers it to Nadia.

Mother: Kai sä nyt sentään voit tätä maistaa?
maybe you now even can this-PART taste
"You can at least taste this, right?"

Nadia: Mua-**han** rehellisesti sanottuna oksettaa tollanen massamurha.
I-PART-*hAn* honestly speaking make-sick that kind of mass murder
"Honestly speaking, that kind of mass murder makes me sick (and you should know that."

a. "I say honestly that [you should know that] that kind of mass murder makes me sick."

b. * "You should know that [I say honestly that] that kind of mass murder makes me sick."

(53) shows that the same scope relation holds with *–pA*. Again, (53b), where the SA adverb scopes over the particle, is not felicitous, while (53a) with the reverse scope is. Here the context is set up so that Nadia does not assume that Clive holds any beliefs about the proposition she expresses.

(53) Nadia is going on a blind date with Clive. They don't know anything about each other, so Clive has no idea that Nadia is a militant vegan. He has led her to his favourite restaurant, which turns out to be a no-nonsense steak house. Realizing this, Nadia says:

Nadia: Mä-**pä** taidan rehellisesti sanottuna jättää tän välistä, koska mua ei
I-*pA* might honestly speaking leave this-ACC between because I-PART not.3SG
kiinnosta osallistua massamurhan tukemiseen.
interest take part mass murder-GEN supporting-ILL
"I might honestly speaking give this a miss because I'm not interested in taking part in supporting mass murder."

a. "I say honestly that [although you had no reason to know] I might give this a miss because I'm not interested in taking part in mass murder."

b. * [Although you had no reason to know] I say honestly that I might give this a miss because I'm not interested in taking part in mass murder."

On the other hand, elements in the Grounding Layer are predicted to outscope sentence adverbs, such as *valitettavasti* 'unfortunately'. Again, Thoma shows this with respect to A- and S-oriented particles in Miesbach Bavarian. (54) illustrates this with respect to the A-oriented particle *doch* 'you believe that' and the evaluative adverb *leida* 'unfortunately':

(54) Am Montag muass'e **doch** leida in d'Uni
on Monday must.I *doch* unfortunately in the.uni

a. * "It's unfortunate that [you believe that] I have to go to Uni on Monday."

b. "You believe that [it's unfortunate that]] I have to go to Uni on Monday."

(from *ibid*.:280)

Here, the available interpretation is that in (54b), where *doch* scopes over *leida*. The same holds with respect to S-oriented *ja*:

(55) Am Montag muass'e **ja** leida in d'Uni
on Monday must.I *ja* unfortunately in the.uni

a. * "[It's unfortunate that [I believe that]] I have to go to Uni on Monday."

b. "[I believe that [it's unfortunate that]] I have to go to Uni on Monday."

Again, only the interpretation where the particle outscopes the adverb, i.e. (55b) is available.

The same observations hold for the Finnish particles. In (56), the A-oriented particle must be interpreted outside of the scope of *valitettavasti* 'unfortunately', as is seen in the contrast between the interpretations in (56a) and (56b). Note that the context is set up so that the particle can mark the fact that Nadia can reasonably assume that the group leader has a prior belief about the proposition.

(56) Nadia arrives at one of her anti-animal abuse action group meetings. She has told the group leader a couple of weeks before that she'll be going to raid a fur farm that evening, and can't stay for the whole meeting. Upon walking into the meeting room, she reminds the leader about this:

Nadia: Mun-**han** täytyy valitettavasti lähteä kesken tänään sinne toiseen paikkaan.
I-*hAn* must unfortunately leave midway today it-ILL other-ILL place-ILL
"I'll have to leave early today for that other place (as you know)."

a. * It is unfortunate that [you know that] I'll have to leave early today for the other place."

b. "You know that [it is unfortunate that] I'll have to leave early today for the other place."

(57) shows that the same holds for the S-oriented *-pA*: again, the interpretation in (57a) where the adverb outscopes the particle is not available, but the reverse scope is accepted, as in (57b). Here the context ensures that Nadia does not hold a belief about the addressee's belief state.

(57) After her lectures, Nadia is going to a demonstration to protest against factory farming. This means she'll have to leave the lecture early; she hasn't mentioned this to the lecturer before, and only announces her plans when walking into the lecture hall.

Nadia: Mun-**pa** täytyy valitettavasti lähteä tänään vähän aikaisemmin.
I-GEN-*pA* must unfortunately leave today a bit earlier
"Unfortunately I'll have to leave a bit earlier today."

a. * "It is unfortunate that [I believe that] I have to leave a bit earlier today."

b. "I believe that [it is unfortunate that] I have to leave a bit earlier today."

Furthermore, importantly to distinguishing between the Grounding Layer and CP, Thoma argues that there is a third category of discourse particles: these so-called O-particles ('O' standing for 'other') can relate to the addressee, speaker, or a discourse entity that is neither. O-particles are assumed to occupy CP rather than the Grounding Layer, and sentence adverbs outscope them. This is illustrated with Miesbach Bavarian *eh*, implying that the proposition expressed was true in the context before the time of utterance:

(58) Am Montag muass'e leida **eh** in d'Uni
on Monday must.I unfortunately *eh* in the.uni
a. "[It's unfortunate that [it was the case before that]] I have to go to uni on Monday."
b. * "[It was the case before that] it's unfortunate]] I have to go to Uni on Monday."

(from *ibid*.:281)

Here, the adverb *leida* must outscope *eh*, as the available interpretation is that in (58a). So, given that *-pA* and *-hAn* have the S adverb *valitettavasti* in their scope in Finnish, they differ from O-oriented *eh* and can therefore be argued to occupy a position higher than CP.

There is a caveat to this conclusion, though: Thoma notes that the O-oriented *jetzt* (with the pragmatic import that the proposition is salient in the context at the time of utterance), unlike *eh*, scopes over S adverbs. This is shown in (59):

(59) Am Montag muass'e **jetz** leida in d'Uni
on Monday must.I *jetz* unfortunately in the.uni
a. * "[It's unfortunate that [it's relevant now that]] I have to go to uni on Monday."
b. "[It's relevant now that [it's unfortunate]] I have to go to uni on Monday."

(from *ibid*.:280-281)

Jetzt outscopes *leida*, with only the interpretation in (59b) being available; hence it behaves in the opposite way from *eh* with respect to its scope with sentence adverbs. As a tentative hypothesis to account for this difference, Thoma suggests that this is

the result of *eh* occupying a head position, while *jetzt* is in a CP specifier position above the adverb. So, the Finnish particles could in principle be argued to occupy specifier positions in the CP rather than the Grounding Layer, which would also capture the scope facts. However, in the absence of any hard and fast evidence supporting a CP position for the particles at this point, I opt for the Grounding Layer option. This is particularly desirable given that their pragmatic import is clearly S- and A-oriented, and the fact that they can co-occur in a set order. Furthermore, as noted above, chapter 4 will provide compelling empirical evidence for a divide between the higher speech act-related domain and CP. For now, I conclude that the Grounding Layer proposal serves to declutter the traditional view of the Finnish CP as a unitary catch-all projection.

3.3.3.3 Where does it all start?

A related question is whether the Grounding Layer also serves as the base position for the particles, or whether they move up there from lower down in the structure. In the sense that they always attach to other phrases and cannot occur independently, the question translates roughly into whether they originate together with their hosting phrase in the host's base position in the thematic domain and then move up as a chunk to the Grounding Layer, or whether they are merged directly into the Grounding Layer and trigger the movement of their hosting phrases. Conceptually, both approaches work. Given the USH, the particles are underspecified for meaning, and only gain more substantive content through being associated with particular projections, in this case GroundA and GroundS, so that they will have to appear in the Grounding Layer at some point, whether that be through internal or external merge. Given their nature as clitics, the particles will need a host, whether that be through attaching to the host in the numeration or the host moving up to the particles. What differentiates between the alternatives is that the latter requires a trigger for the movement of the hosting phrase, tying in with discourse-related movements more generally.

It should be noted, though, that cross-linguistically discourse particles are generated both directly in the Grounding Layer and elsewhere in the structure, undergoing

movement to their position of interpretation. Thoma (2014, 2016) shows that in Miesbach Bavarian, for instance, there is a dissociation between the spell out and interpretation positions of the particles, in that they appear below the Grounding Layer and are then associated with the relevant positions for interpretation through Agree.[35] (60) shows that the particles are spelled out in the middle field, despite being interpreted in the periphery of the sentence:

(60) Es findts ja nix.
you find.2PL *ja* nothing
"You're not gonna find anything."

(from Thoma, 2016:45)

On the other hand, languages such as Mandarin (Yang and Wiltschko, 2016 cited in *ibid*.:292), Cantonese (Lam, 2014), Italian dialects (Munaro and Poletto, 2004 cited in *ibid*.:292), Japanese (Davis, 2011, and section 3.4 here), and West Flemish (Haegeman, 1993 cited in *ibid*.:292) have particles that are functionally equivalent to the ones in German and its dialects but appear in peripheral positions. Based on cross-linguistic evidence, both options – movement and base generation in the Grounding Layer – therefore appear to be available.

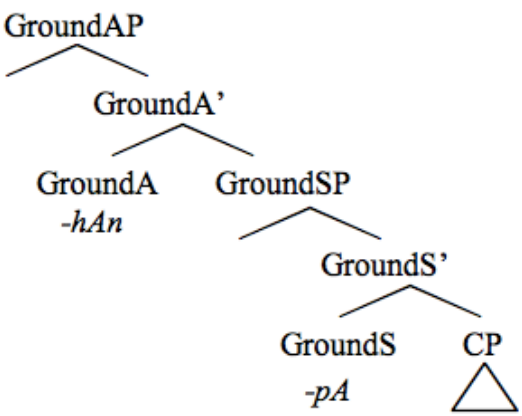
In the following, I present two possible ways of encoding the particles and the Grounding Layer in the Finnish left periphery. First, I will discuss two takes on merging the particles directly as clausal heads in the Grounding Layer. Then, I will introduce new data, based on Holmberg's (2014) work, showing that the particles are, in fact, better captured as first merging onto the XPs they are associated with.

[35] Another option would be to postulate a speaker-oriented periphery for vP that would parallel the CP periphery in terms of projections. Belletti (2004), for example, argues for a focus position at the edge of vP, so the lower Grounding Layer would be built on this, again mirroring the higher periphery. As discussed in chapter 2, Alcázar and Saltarelli's (2014) work on imperatives is another example of encoding speech act participants at the vP edge.

Option 1: *-hAn* and *-pA* as clausal heads

The first option is to assume that the particles are merged directly into the Grounding Layer as heads of GroundSP and GroundAP. The phrase that ultimately hosts the particle then moves to the Grounding Layer to the specifier position of these heads. The basic structure is illustrated in (61):

(61)



The A-oriented GroundAP dominates the speaker-oriented GroundSP, both of which are situated above CP.[36] The particles occupy the head positions of these projections, *-hAn* in GroundA and *-pA* in GroundS. This ordering is the opposite of the one presented in section 3.3.3.1 for the purposes of the following hypothesis; it also reflects the idea that S orientation is always included in A orientation.

However, as was illustrated in Table 2 in section 3.3.2 above, when *-pA* and *-hAn* co-occur on the same XP *-pA* always precedes *-hAn*, i.e. they are spelled out in the opposite order to that in (61). I assume that the correct ordering is the result of snowballing movement. In order for the particles to attach to their hosting phrases, the phrases have to move up in the structure to the specifiers of the GroundSP and GroundAP projections. In cases of the two particles co-occurring, the hosting phrase lands first in GroundSP, where *-pA* is attached, and then the complex phrase moves to spec,GroundAP, where *-hAn* attaches to follow *-pA*. The observed ordering thus results from local snowballing movement in the Grounding Layer and the Mirror Principle.

[36] The finer structure of CP is left unarticulated.

For the hosting phrases to move, there has to be a movement trigger. I assume that this is a discourse-related feature contributing to the pragmatic meaning of the particles. Similar features have been postulated by Brattico, Huhmarniemi, Purma and Vainikka (2016) in the form of [*pA*] and [*hAn*] features. Here, I will dub the features [A orientation] and [S orientation]. GroundSP would then carry an uninterpretable [*u*S orientation] feature and GroundAP an uninterpretable [*u*A orientation] feature. These features act as probes, searching for a phrase carrying their interpretable counterpart; the phrase carrying this feature is then attracted to spec,GroundSP or spec,GroundAP and becomes the host to the relevant particle or particles.

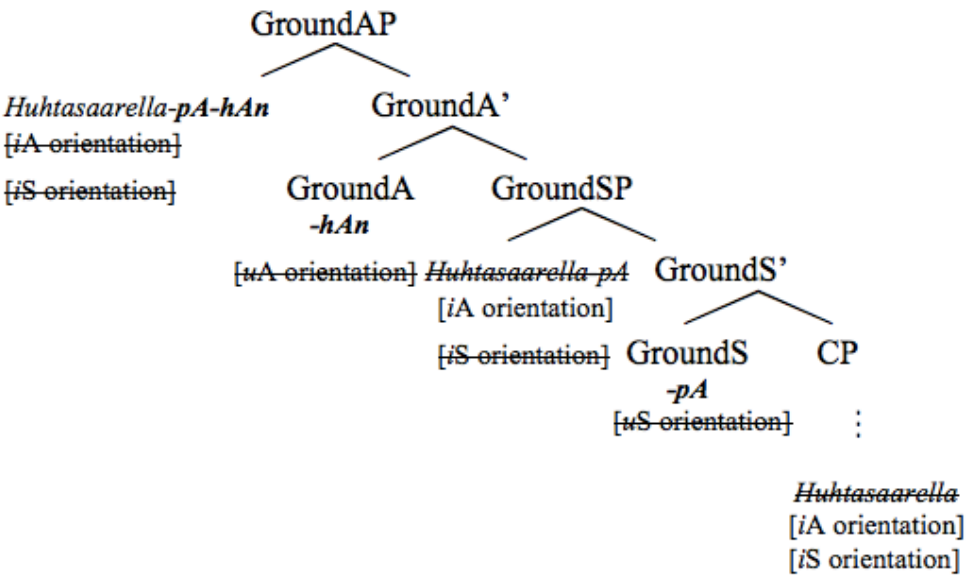
To illustrate this derivation, consider (62):

(62) Huhtasaarella-**pa**-**han** on paljon kannattajia.
Huhtasaari-ADE-*pA*-*hAn* is many supporters
"Wow, Huhtasaari does have many supporters after all!"

Here, -*pA* contributes a sense of exclamation to the utterance, while -*hAn* contributes a sense of topicality or contrast in that the utterance is taken to make a new contribution to previous information about Huhtasaari where it is assumed that she may not have many supporters. However, as is always the case with these two particles, their meanings are highly context-sensitive and this is only one possible translation of the sentence.

Structurally, the phrase *Huhtasaarella* has moved from its base position – what exactly this is is not relevant to the discussion here – first to spec,GroundSP, where -*pA* is attached and then to spec,GroundAP where -*hAn* is attached to follow -*pA*. *Huhtasaarella* carries [*i*S orientation] and [*i*A orientation] features which then check their uninterpretable counterparts in spec,GroundSP and spec,GroundAP, respectively, through which process the particles are attached to the phrase.

(63)



That *-pA* and *-hAn* occupy a clausal head position is supported by independent evidence based on negative cliticization. The negative auxiliary *e-* can undergo head movement and cliticize onto the complementizer (Brattico, Huhmarniemi, Purma and Vainikka, 2016), relative pronoun, and some *wh*-words. This is shown in (64):

(64) a. Vaaliennusteet näyttävät, että Putin *ei* joudu luopumaan
election predictions show that Putin not.3SG need give up
vallasta.
power-ELA
"Election predictions show that Putin will not need to give up power."

b. Vaaliennusteet näyttävät, *ettei* Putin joudu luopumaan
election predictions show that-not.3SG Putin need give up
vallasta.
power-ELA
"Election predictions show that Putin will not need to give up power."

In (64a), the negation remains in NegP, but in (64b) it has undergone head movement and attached onto the complementizer. If a discourse particle appears in the embedded clause, cliticization becomes ungrammatical:

(65) a. Vaaliennusteet näyttävät, että Putin-**han** ei joudu luopumaan
election predictions show that Putin-*hAn* not.3SG need give up
vallasta.
power-ELA
"Election predictions show that Putin will not need to give up power."

b. * Vaaliennusteet näyttävät, ettei Putin-**han** joudu luopumaan
election predictions show that-not.3SG Putin-*hAn* need give up
vallasta.
power-ELA
"Election predictions show that Putin will not need to give up power."

(65a) with the particle *-hAn* and no cliticization is acceptable; but as (65b) shows, the presence of the particle blocks movement of the negative element. Adapting Brattico, Huhmarniemi, Purma and Vainikka's (2016) analysis (discussed in detail below), this follows if there is an additional head intervening between the complementizer and NegP. I assume that the heads in this case are GroundA and GroundS.

A question that arises from the above analysis is what the location of the complementizer *että* 'that' is. It can co-occur with the particles, and precedes them in linear order, suggesting that it appears higher in the structure than the Grounding Layer, and thus outside the CP domain where it is traditionally taken to appear. Bhatt and Yoon (1992) argue that complementizers have two functions: to indicate clause type and mood, on the one hand, and to indicate subordination, on the other. English *that*, for example, lexicalizes both functions. In languages such as Korean and Japanese, however, the two functions are carried by separate lexemes. Japanese *to*, for example, merely indicates verbal subordination, and is compatible with a variety of mood markers. In (66a) it appears with a subordinated declarative and in (66b) with a subordinated interrogative marked with the question particle *ka*:

(66) a. Bill wa John ga kita to omotta.
Bill TOP John NOM came COMP thought
"Bill thought that John came."

(from *ibid*.:43)

b. Bill wa John ga kita ka to kiita.
Bill TOP John NOM came Q COMP asked
"Bill asked if John came."

That Finnish *että* behaves like Japanese *to* in indicating only subordination is supported by the observation that it can also optionally co-occur with *wh*-words when introducing indirect questions:

(67) Ulkomaalaiset toimittajat ihmettelevät, (että) miksi niin moni uskoo Putinin
foreign reporters wonder that why so many believe Putin-GEN
henkilökulttiin.
personality cult-ILL
"Foreign reporters wonder why so many believe in Putin's personality cult."

This serves to show further that the traditional take on the Finnish C as hosting both the complementizer *että* and *wh*- and other elements cannot be upheld. Analyzing *että* as a pure subordinator high in the structure also explains how the particles are allowed in some embedded contexts, as will be argued in the next chapter.

The above is not the only way of implementing the idea that the particles are merged directly as clausal heads, however. An alternative is to flip the movement relation around, as it were, and to assume that it is the particles rather than their host phrases that undergo movement.[37] To avoid postulating rightward movement, the crucial mechanism here is feature inheritance. I will follow Brattico, Huhmarniemi, Purma and Vainikka's (2016) feature inheritance approach here, adapting it to the idea of an additional Grounding Layer. What follows is an overview of their analysis.

The proposal tallies with the traditional view of the Finnish left periphery in that it maintains a relatively sparse syntactic spine – as in the standard analysis presented above – as compared to, for example, the cartographically articulated Italian one.

[37] Given that particles are typically assumed to be inert with respect to movement, this proposal might lack crosslinguistic support. However, moving the particles is in essence what follows from Brattico, Huhmarniemi, Purma and Vainikka's (2016) analysis, so for argument's sake I will entertain the option here.

However, a crucial component of the approach is the postulation of one additional projection, based on observations about relative clauses. Crucially, discourse particles, question particles, and focused phrases cannot occur in relative clauses. This is illustrated with *-hAn* in (68a) and *-pA* and *-s* in (68b):

(68) a. * mies, jonka Merja-**hAn** näki
man who-ACC Merja-*hAn* saw

b. * mies, jonka-**pa-s** Merja näki
man who-ACC-*pA*-*s* Merja saw
Intended meaning: "the man who Merja saw"
(from *ibid*.:68)

The unacceptability of these elements in relative clauses cannot be accounted for in terms of the projections available if one follows the standard analysis in assuming that relative pronouns, wh-pronouns, focused phrases and phrases with discourse particles all occupy the same left-peripheral position.

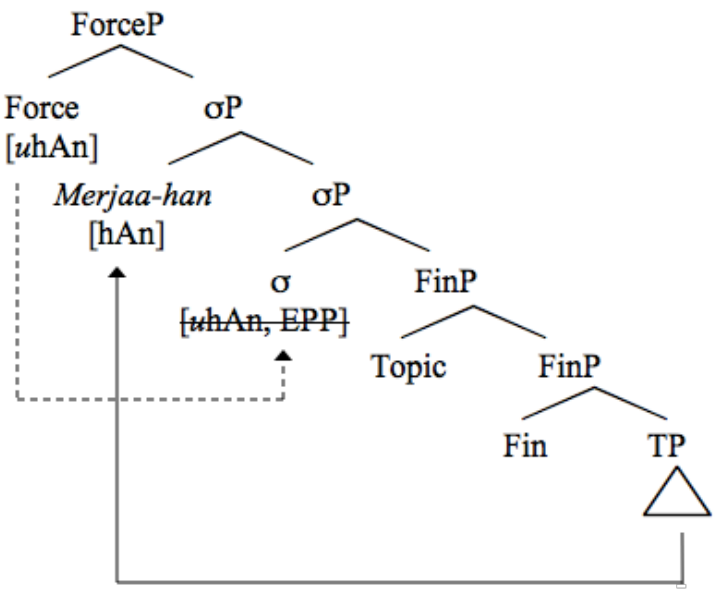
To account for the acceptability pattern in relative clauses, Brattico, Huhmarniemi, Purma and Vainikka postulate an operator phrase, σP, sandwiched between FinP and ForceP. ForceP – the highest projection of the clause – is taken to host two types of features: features encoding clause type[38] – including the complementizer *että* 'that', wh-pronouns and the question particle *-kO* –, on the one hand, and discourse features encoded by the particles *-hAn*, *-pA* and *-s* as well as contrastive focus, on the other. ForceP is only projected if the clause is typed, tying clause typing and discourse features together. Crucially to the argument being made here, relative clauses have σP as their highest projection, hosting the relative pronoun, and lack ForceP.

However, while wh-pronouns, discourse features and *-kO* are part of Force, they are grammatically active at σP one step lower; hence, they ultimately come to occupy the same projection as relative pronouns – as in the standard, unified CP analysis – but they start off in a higher projection. This follows from a mechanism of feature

[38] According to the authors' definition of clause type, Force "tells whether the clause is a declarative, interrogative, exclamative, comparative, adverbial, or a relative clause" (*ibid*.:69).

inheritance: a head A, here σP, becomes richer in content when it is selected by another head B, here ForceP (see Chomsky (2008) and Richards (2007) for detailed discussions on feature inheritance). Take the case of *-hAn*, for example, as schematized in (69):

(69)



(from *ibid*.:88)

There is an uninterpretable [u*hAn*] feature at ForceP, which is inherited by σP. From here, it will search for a phrase or word containing [*hAn*], resulting in Agree, match, and deletion, and finally, due to an EPP feature, movement of the phrase hosting the particle.

This framework can be modified to accommodate the Grounding Layer. Crucially, the structure is the same as in (69), with the discourse particles in Spec,GroundSP and Spec,GroundAP instead of ForceP. A more problematic aspect is the final position of the particles: the authors do not discuss cases where the particles co-occur, and this requires either allowing the particles to be stacked onto σP, or splitting the projection into two, essentially lower versions of Spec,GroundAP and Spec,GroundP. The inheritance mechanism would then work as outlined above, but with additional projections both as the origin and final location of the discourse particles and their associated features.

Evidence that feature inheritance operates in Finnish in general comes from the behaviour of negation, based on Brattico and Huhmarniemi's (2006 cited in *ibid*.:100) analysis. The negation word *e-* agrees with the subject in φ-features and appears before the main verb and other verbal elements, as illustrated in (70):

(70) Pekka ei syö leipää.
Pekka not.3SG eat bread
"Pekka does not eat bread."

(from *ibid*.100)

The negative particle occupies its own head Neg between C and T – see the standard Finnish clausal skeleton in Figure 1 in section 3.3.1 above.

Following from these assumptions, the feature inheritance model predicts that when negation is present, φ-features are attached to negation and not T, as they originate higher up in the clause and are inherited by the next relevant head lower down. This prediction holds: negation shows full φ-agreement in contrast to T – which is inflected for Tense –, and participates in nominative Case assignment, bearing an EPP-feature.

As for the original location of the φ-features, Brattico, Huhmarniemi, Purma and Vainikka argue that they originate at σ, rather than Force. This follows from the observation that φ-features occur in constructions lacking the Force projection, such as relative clauses. The picture that emerges is then one where discourse features are inherited from ForceP – or separate projections in the Grounding Layer – to σP – or more articulated projections –, and φ-features are inherited from σP to the next functional head, i.e. T or Neg. This builds on Miyagawa's (2010) work on different types of features that can spread from higher heads, to which I return below.

The bulk of the evidence Brattico, Huhmarniemi, Purma and Vainikka use to support their analysis derives from dismissing alternative models, however. First, one alternative would be to assume that the phrases occurring at σP move to Spec,ForceP, leaving the discourse features at Force and doing away with feature inheritance. This

corresponds conceptually to the movement analysis discussed above. However, the authors argue that this is ruled out as complementizers can co-occur with question particles and wh-pronouns as well as discourse features, implying that they cannot all be located at ForceP. However, as was mentioned above, there is nothing that prevents locating the very evidently subordination-oriented complementizer of Finnish higher in the structure. It also remains unclear why the authors see the co-occurrence of the complementizer and wh-elements and discourse particles as evidence against a shared projection, but do not discuss the possibility of the discourse features and wh-elements co-occurring – this serves as evidence against them all occupying the same position, σP.

Finally, the authors derive support for the presence of σP from the negation cliticization data discussed above in examples (64) and (65). Crucially, these data suggest that there is an additional head between the host complementizer and NegP, blocking cliticization when a wh-interrogative or discourse particle is present. However, the intervening head need not be σP, and, as discussed above, the data can also be explained by locating the complementizer above the Grounding Layer.

It would then seem that there is no hard and fast evidence to support a feature inheritance analysis over a phrasal movement one. Rather, an approach relying on feature inheritance means postulating additional projections and essentially doubling projections needed independently in the Grounding Layer. Furthermore, in this instance, a model relying on feature inheritance looks very much like a model relying on rightward movement. Hence, in the absence of evidence to support the feature inheritance model over the phrasal movement one, if the clausal head analysis of the particles is correct, I adopt the latter as theoretically more parsimonious, less dubious, and offering the same empirical coverage.

This is not to say that a feature inheritance model is without any value for Finnish syntax. Miyagawa (2010) and Jiménez-Fernández and Miyagawa (2014) propose a typology of discourse- and agreement-oriented languages, where languages differ in this dimension based on what features are subject to a process of feature inheritance. Simplifying drastically, if T inherits only discourse features, the language is discourse-prominent – such as Japanese and Korean, for example – while if T inherits

only φ-features, the language is agreement-prominent – English, for example. Brattico, Huhmarniemi, Purma and Vainikka adopt this approach to the Finnish left periphery, arguing that Finnish occupies a middle position between the two main types because of two characteristics: first, both types of features are inherited, and second, the position for topics and full agreement is the same, i.e. Neg or T. However, while appealing from a typological perspective, the issue remains that a feature inheritance approach to Finnish that wholly captures the nature of the discourse particles will mean multiplying projections, without clear evidence for doing so.

Option 2: *-hAn* and *-pA* – not so clausal after all

The idea that the particles are merged into clausal heads corresponds to what Holmberg (2014) dubs the "standard" analysis of the particles in Finnish. To recap, here the particles carry a feature that attracts a constituent, which, if it is a head such as a finite verb, adjoins to the particle, or if it is an XP, lands in the specifier of the particle. An alternative to merging the particles as clausal heads is to merge them lower down in the structure onto their host constituents, whence they then move up to their final positions as a whole. Holmberg shows with respect to the question particle *-kO* that this alternative analysis in fact provides a better fit to the empirical observations. In the following paragraphs, I will summarize Holmberg's analysis. In essence, additional data show that *-kO* need not attach to the whole constituent but instead to a subconstituent when the questioned constituent is complex, and that it interacts with focus in relevant ways. On this basis, Holmberg develops an analysis based on the standard model to account for these facts, showing that it cannot account for all the data, and then proposes an alternative approach where *-kO* is not merged in the higher clausal domain. With this in place, I will then show that the same empirical findings hold with respect to *-pA* and *-hAn*, and that therefore a similar approach to *-kO* is preferable to the analyses discussed above.

Central to Holmberg's discussion is the observation that *-kO* can attach to subconstituents of the larger questioned phrase. Take the declarative in (71):

(71) Me ajettiin kaupunkiin Ollin isän autolla.
we drove town-ILL Olli-GEN father-GEN car-ADE
"We drove into town in Olli's father's car."

(from *ibid*.:269)

Holmberg labels the constituent *Ollin isän autolla* 'in Olli's father's car' as Kase Phrase, or KP.[39] When this KP is questioned, *-kO* can attach to any of the three subconstituents, as illustrated in (72):

(72) a. Ollin-**ko** isän autolla te ajoitte?
Olli-GEN-*kO* father-GEN car-ADE you drove

b. Ollin isän-**kö** autolla te ajoitte?
Olli-GEN father-GEN-*kO* car-ADE you drove

c. Ollin isän autolla-**ko** te ajoitte?
Olli-GEN father-GEN car-ADE-*kO* you drove
"Was it Olli's father's car that you drove in?"

(from *ibid*.:269)

However, the placement of *-kO* does not alone determine the reading of the sentence. Rather, it interacts with the scope of focus in questions, depending on where the focus stress falls. Holmberg summarizes the combinatorial possibilities of *-kO* and the focus stress for the KP *Ollin isän autolla* as in (73):

(73) a. OLLIN (ko) isän (ko) autolla (ko)

b. Ollin (*ko) ISÄN (ko) autolla (ko)

c. Ollin (*ko) isän (*ko) AUTOLLA (ko)

(from *ibid*.:273)

[39] Holmberg notes that KPs with a semantic case, such as the adessive here, could be classified as PPs. The labelling of the phrase is however not crucial to the current discussion.

The capitals denote focus stress. Crucially, the focus must precede *-kO*: for example, in (73c), where the stress falls on the adessive *autolla*, *-kO* can only attach to *autolla*. On the other hand, in (73a) where the stress falls on the initial *Ollin*, *-kO* can attach to any of the three subconstituents. As for the interpretation of the questions, the narrow focus is not restricted to the constituent that bears the stress in all cases. Consider (72c), repeated here as (74):

(74) Ollin isän autolla-**ko** te ajoitte?
Olli-GEN father-GEN car-ADE-*kO* you drove
"Was it Olli's father's car that you drove in?"

The sentence has four possible readings depending on where the stress falls. With neutral stress, the whole KP is focused. If *autolla* bears the stress, that constituent will be narrowly focused, in the sense of 'Was it Olli's father's CAR that you drove (or his motorbike)?'. If *isän* bears the stress, the scope can either be on *isän* only ('Was it Olli's FATHER's car that you drove (or his uncle's)?') or on *Ollin isän* ('Was it Olli's father's car that you drove (or YOUR car)?'). Finally, with *Ollin* bearing the stress, there will be narrow focus on that constituent.

Now consider the set of examples in (75), where the KP consists of a demonstrative followed by an adjective and a noun, rather than a genitive possessor as in (72):

(75) a. SIITÄ (ko) vanhasta (*ko) kirjasta (ko)

b. siitä (*ko) VANHASTA (ko) kirjasta (ko)

c. siitä (*ko) vanhasta (*ko) KIRJASTA (ko)

(from *ibid*.:273)

While the interaction of focus stress and *-kO* is largely the same as for (72) above, it does differ in one respect. In (75a) with focus stress on only the demonstrative, *-kO* may not attach to the adjective. Rather, when *-kO* appears on the adjective, two patterns are possible: stress and narrow focus on the adjective, or neutral stress and focus on the whole KP. These options are illustrated in (76):

(76) a. Siitä VANHASTA-**ko** kirjasta te puhutte?
that-ELA old-ELA-*kO* book-ELA you talk
"Are you talking about that OLD book?"

b. SIITÄ VANHASTA-**ko** KIRJASTA te puhutte?
"Is it THAT OLD BOOK that you are talking about?"

(from *ibid*.:272)

Given these data, any analysis of *-kO* will have to account not only for the sentence-initial position of the particle-bearing constituent but also the particle's placement within that phrase and its interaction with focus.

To see how this would work on a so-called standard analysis, i.e. one where *-kO* is merged into the CP, consider (72a), repeated here as (77):

(77) Ollin-**ko** isän autolla te ajoitte?
Olli-GEN-*kO* father-GEN car-ADE you drove
"Was it OLLI's father's car that you drove in?"

(from *ibid*.:273)

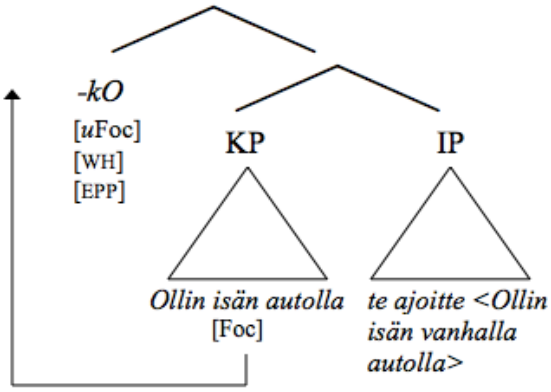
For the sake of argument, Holmberg assumes that an interpretable, valued feature [Foc] is assigned to the relevant category, in this case *Olli*. Structurally, this translates into (78):

(78) $[_{IP}$ te ajoitte $[_{KP}$ [Ollin isän] autolla]
[Foc]

(from *ibid*.:274)

The derivation proceeds as schematized in (79):

(79)



(from *ibid*.:274)

First, the [Foc]-marked category moves to the edge of the clause and pied-pipes enough material for convergence, typically a complete argument or adverbial. In this case, *Olli* must pied-pipe the entire adverbial KP. At the next stage, the clitic *-kO* merges into the tree, bearing an interpretable wh-feature, an unvalued [uFoc] feature, and an EPP-feature. The [uFoc] feature on *-kO* probes for the [Foc] feature on KP, triggering movement of the category bearing the feature, here *Ollin*, to give (77). Alternatively, this movement can also pied-pipe a larger constituent, i.e. either *Ollin isän* or *Ollin isän autolla*, resulting in (72b) and (72c), respectively.

If [Foc] is assigned to *isä*, the EPP-feature on *-kO* will attract minimally *Ollin isän*, assuming that the head *isän* cannot strand its specifier; it could also attract the bigger KP *Ollin isän autolla*. If [Foc] is assigned to *auto*, the EPP-feature will have to attract the entire KP. In this way, all the options in (72) can be derived by this system.

However, doing so violates broader theoretical principles. The derivation of (72a) requires the genitive *Ollin* moving to spec,CP alone, and (72b) requires the movement of *Ollin isän* alone. This entails allowing movement out of KP and violating the Left Branch Condition. Furthermore, the KP itself is derived by A-movement in the first stage of the account, which is taken to usually result in freezing. Hence only the derivation of (72c), where the whole XP is moved into spec,CP, and *-kO* attaches to its right edge is unproblematic.

Furthermore, the model cannot derive (76a), with *-kO* on the adjective *vanhasta*. This is because the demonstrative and adjective do not form a constituent, as is evident from the structure in (80):

(80) $[_{DemP}$ se $[_{NP}$ vanha $[_{NP}$ kirja]]]

(from *ibid*.:276)

This leads Holmberg to abandon this version of the standard analysis.

An alternative is to assume that *-kO* is in fact merged lower down in the structure, i.e. not in CP. Evidence for this comes from parallels with the focus marker *-kin/-kAAn* 'too, either, even' which shows the same interaction between stress and the clitic's position as *-kO*. Crucially, though, it does not undergo fronting. As shown in (81), the clitic can attach to any sentential constituent, influencing the scope of the focus:

(81) a. Me-**kin** ajettiin Ollin isän autolla kaupunkiin.
we-*kin* drove Olli-GEN father-GEN car-ADE town-ILL
"We, too, drove into town in Olli's father's car."

b. Me ajettiin-**kin** Ollin isän autolla kaupunkiin.
"We drove into town in Olli's father's car, after all."

c. Me ajettiin Ollin-**kin** isän autolla kaupunkiin.
"We drove into town in OLLI's father's car, too."

d. Me ajettiin Ollin isän-**kin** autolla kaupunkiin.
"We drove into town in Olli's FATHER's car, too."

e. Me ajettiin Ollin isän autolla-**kin** kaupunkiin.
"We drove into town in Olli's father's CAR, too."

f. Me ajettiin Ollin isän autolla kaupunkiin-**kin**."
"We drove into town, too, in Olli's father's car."

(from *ibid*.:277)

-kin/-kAAn is similar to *-kO* also in that it can attach to a category other than the focused constituent. In (82), all the examples have narrow scope on *Olli*:

(82) a. Me ajettiin OLLIN-**kin** isän autolla kaupunkiin.

b. Me ajettiin OLLIN isän-**kin** autolla kaupunkiin.

c. Me ajettiin OLLIN isän autolla-**kin** kaupunkiin.
"We went into town in OLLI's father's car, too."

(from *ibid*.:277)

However, *-kO* and *-kin*/*-kAAn* differ in that the former must be preceded by a constituent, while the latter need not. For example, in KPs consisting of a genitive possessor and an adjective, *-kO* cannot be merged with the adjective:

(83) a. * Ollin vanhalla-**ko** autolla te ajoitte?
Olli-GEN old-*kO* car-ADE you drove
Intended reading: "Was it Olli's OLD car that you drove in?"

b. Me ajettiin Ollin vanhalla-**kin** autolla.
we drove Olli-GEN old-ADE-*kin* car-ADE
"We drove in Olli's old car, too."

(from *ibid*.:282)

Based on this, Holmberg argues that the placement of *-kO* with respect to the other constituents of the KP is a result of moving a constituent to the specifier of *-kO*, whereas *-kin/-kAAn* can be freely attached to any phrase. What is common to both clitics, though, is that neither of them is merged directly to a high projection in C.

For the alternative analysis, Holmberg argues that *-kO* is merged as a determiner of KP, as in (84):

(84) [-ko [$_{KP}$[$_{KP}$[$_{KP}$ Ollin] isän] [$_{NP}$ autolla]]]

-kO has a [uFoc] feature linked with an EPP-feature. This probes the KP for a matching valued feature [Foc], triggering movement of it and pied-piping a subconstituent of the KP in the process, with optionality regarding the size of the pied-piped constituent. This is illustrated in (85), where the [Foc] feature is assigned to *Olli*:

(85) a. [OLLIN] ko [$_{KP}$ [$_{KP}$ <[$_{KP}$ Ollin]> isän] [$_{NP}$ autolla]]

b. [OLLIN isän] ko [$_{KP}$ <[$_{KP}$ [$_{KP}$ Ollin] isän]> [$_{NP}$ autolla]]

c. [OLLIN isän autolla] ko <[$_{KP}$ [$_{KP}$ [$_{KP}$ Ollin] isän] [$_{NP}$ autolla]]>

(from *ibid*.:284)

-kO also carries a wh-feature, so that it is a goal for an uninterpretable wh-feature in C, undergoing movement to CP and pied-piping the entire *-kO* phrase. This dual function of *-kO* derives both its interaction with the scope of focus as well as its sentence-initial positioning.

To explain the data with the demonstrative, as in (76), Holmberg assumes that a demonstrative may be merged either below or above *-kO*:

(86) a. [*-kO* [$_{KP}$ siitä [$_{NP}$ vanhasta [$_{NP}$ kirjasta]]]]

b. [$_{KP}$ siitä [*-kO* [$_{NP}$ vanhasta [$_{NP}$ kirjasta]]]]

(from *ibid*.:285)

This can derive both options in (76). The idea that demonstratives can appear in a high or low position finds independent support in work by Guardino (2010 cited in Roberts, 2017:159-161), where it is argued that demonstratives are universally first merged in a low position in the nominal, but they may raise to spec,DP. This allows one to capture cross-linguistic variation in the position of the demonstrative relative to other DP-internal elements, and in whether demonstratives can co-occur with definite determiners.

However, Holmberg's alternative analysis also faces problems. The major issue here is that, just as the standard view, it violates the Left Branch Condition in deriving (72a) and (72b); in the derivation (85a), the genitive *Ollin* moves to the specifier of *-kO* alone, and in (85b) the genitive *Ollin isän* moves alone. It does have the advantage that in this case, the left branch is not itself a result of A-movement as in the standard account, where the KP itself is derived by A-movement. It is also supported by the parallels with *-kin/-kAAn*, noted in the set of examples in (81), which the standard account does not capture. As such, I argue that if the particles *-hAn* and *-pA* show similar behaviour to *-kO*, this should be taken as evidence against merging them directly into the Grounding Layer, whatever the final analysis may end up being.

Holmberg's data for *-kO* can be replicated for *-hAn* and *-pA*, showing the same attachment options as well as the same interaction with focus. Here, I will give a single translation for both *-hAn* and *-pA* sentences as the pragmatic contribution of the particles differs according to the context; the translation serves to show where the focus falls given the placement of the particle and stress in each case.

When the particles attach to the first constituent, the genitive possessor *Olli*, narrow focus must fall on this constituent:

(87) a. OLLIN-**han** äidin moottoripyörällä me ajoimme.
Olli-GEN-*hAn* mother-GEN motorbike-ELA we rode

b. OLLIN-**pa** äidin moottoripyörällä me ajoimme.
Olli-GEN-*pA* mother-GEN motorbike-ELA we rode
"It was OLLI's mother's motorbike we rode (and not Aune's mother's)."

When the particles attach to the genitive possessor *äidin*, the stress can be placed on either *äidin* or *Ollin*. In the first case, there can be narrow scope on *äidin* or wider scope on *Ollin äidin*:

(88) a. Ollin ÄIDIN-**hän** moottoripyörällä me ajoimme.
Olli-GEN mother-GEN-*hAn* motorbike-ELA we rode

b. Ollin ÄIDIN-**pä** moottoripyörällä me ajoimme.
Olli-GEN mother-GEN-*pA* motorbike-ELA we rode
"It was Olli's MOTHER's motorbike we rode (and not his father's)."
"It was Olli's mother's motorbike we rode (and not mine)."

In the second case, scope must be on *Ollin* only:

(89) a. OLLIN äidin-**hän** moottoripyörällä me ajoimme.
Olli-GEN mother-GEN-*hAn* motorbike-ELA we rode

b. OLLIN äidin-**pä** moottoripyörällä me ajoimme.
Olli-GEN mother-GEN-*pA* motorbike-ELA we rode
"It was OLLI's mother's motorbike we rode (and not Aune's mother's)."

When the particle is attached to the head of the whole phrase, *moottoripyörällä*, there can be neutral stress on the whole constituent or stress on any one of the individual elements. With neutral stress, the focus is on the whole constituent:

(90) a. Ollin äidin moottoripyörällä-**hän** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*hAn* we rode

b. Ollin äidin moottoripyörällä-**pä** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*pA* we rode

When the stress falls on *moottoripyörällä*, that constituent bears narrow focus:

(91) a. Ollin äidin MOOTTORIPYÖRÄLLÄ-**hän** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*hAn* we rode

b. Ollin äidin MOOTTORIPYÖRÄLLÄ-**pä** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*pA* we rode
"We rode Olli's mother's MOTORBIKE (and not her pickup truck)."

With stress on *äidin*, there can be narrow focus on *äidin* or wider focus on *Ollin äidin*:

(92) a. Ollin ÄIDIN moottoripyörällä-**hän** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*hAn* we rode

b. Ollin ÄIDIN moottoripyörällä-**pä** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*pA* we rode
"It was Olli's MOTHER's motorbike we rode (and not his father's)."
"It was OLLI'S MOTHER'S motorbike we rode (and not mine)."

When the stress falls on *Ollin*, the only possible scope is narrow focus on *Ollin*:

(93) a. OLLIN äidin moottoripyörällä-**hän** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*hAn* we rode

b. OLLIN äidin moottoripyörällä-**pä** me ajoimme.
Olli-GEN mother-GEN motorbike-ELA-*pA* we rode
"It was OLLI's mother's motorbike we rode (and not Aune's mother's)."

-hAn and *-pA* also mirror *-kO* in their behaviour when it comes to phrases with a demonstrative.

With the particle attached to the demonstrative, the demonstrative must bear narrow focus:

(94) a. SIITÄ-**hän** vanhasta kirjasta me puhuimme.
that-ELA-*hAn* old-ELA book-ELA we talked

b. SIITÄ-**pä** vanhasta kirjasta me puhuimme.
that-ELA-*pA* old-ELA book-ELA we talked
"We talked about THAT old book (and not this one)."

When the particle attaches to the adjective *vanhasta*, there can either be stress and narrow focus on the adjective or stress and focus on the whole constituent:

(95) a. Siitä VANHASTA-**han** kirjasta me puhuimme.
that-ELA old-ELA-*hAn* book-ELA we talked

b. Siitä VANHASTA-**pa** kirjasta me puhuimme.
that-ELA old-ELA-*pA* book-ELA we talked
"We talked about that OLD book (and not the new one)."

c. SIITÄ VANHASTA-**han** KIRJASTA me puhuimme.
that-ELA old-ELA-*hAn* book-ELA we talked

d. SIITÄ VANHASTA-**pa** KIRJASTA me phuimme.
that-ELA old-ELA-*pA* book-ELA we talked
"We talked about THAT OLD BOOK."

When the particles attach to the head *kirjasta*, there can be neutral stress on the whole constituent, with corresponding focus, or stress and narrow focus on any one of the individual subconstituents:

(96) a. Siitä vanhasta kirjasta-**han** me puhuimme.
that-ELA old-ELA book-ELA-*hAn* we talked

b. Siitä vanhasta kirjasta-**pa** me puhuimme.
that-ELA old-ELA book-ELA-*pA* we talked
"We talked about that old book."

c. SIITÄ vanhasta kirjasta-**han** me puhuimme.
that-ELA old-ELA book-ELA-*hAn* we talked

d. SIITÄ vanhasta kirjasta-**pa** me puhuimme.
that-ELA old-ELA book-ELA-*pA* we talked
"We talked about THAT old book (and not this one.)"

e. Siitä VANHASTA kirjasta-**han** me puhuimme.
that-ELA old-ELA book-ELA-*hAn* we talked

f. Siitä VANHASTA kirjasta-**pa** me puhuimme.
that-ELA old-ELA book-ELA-*pA* we talked
"We talked about that OLD book (and not the new one)."

g. Siitä vanhasta KIRJASTA-**han** me puhuimme.
that-ELA old-ELA book-ELA-*hAn* we talked

h. Siitä vanhasta KIRJASTA-**pa** me puhuimme.
that-ELA old-ELA book-ELA-*pA* we talked
"We talked about that old BOOK (and not the old film)."

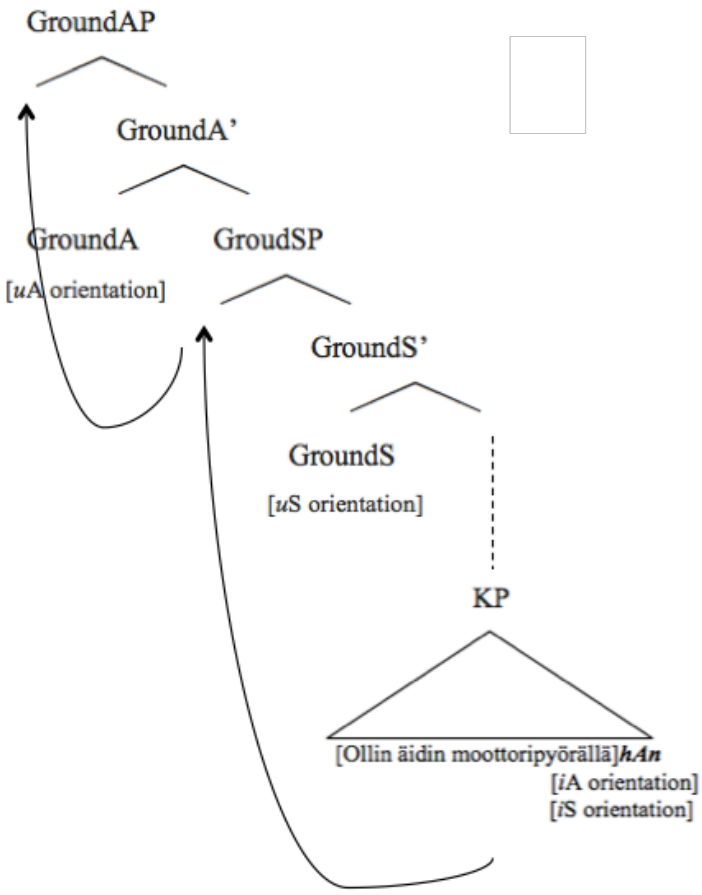
Given the exact parallels in behaviour with *-kO*, I adopt Holmberg's analysis for *-hAn* and *-pA* as well. This means crucially that they are not merged into the high clausal projections in the Grounding Layer directly, contra the first option. Rather, like *-kO*, they are merged initially as determiners of KP and carry a [uFoc]-feature linked with an EPP-feature:

(97) [*-hAn* [*-pA* [$_{KP}$[$_{KP}$[$_{KP}$ Ollin] äidin] [$_{NP}$ moottoripyörällä]]]]

It should be noted here that Holmberg does not elaborate on what kind of a determiner *-kO* is exactly nor which position it is merged in specifically. It is clear that *-hAn* and *-pA* are not 'standard' determiners in the sense of definite and indefinite determiners, for example; Wiltschko (2014) takes the latter to associate with the nominal anchoring domain, responsible for anchoring the event or individual to the utterance and resulting in either deictic or anaphoric anchoring – see the graph in (56) in the previous chapter. Now, taking *-hAn* and *-pA* to be first merged as determiner-type elements in the KP offers an interesting avenue for building additional, discourse-sensitive layers in the DP periphery for Finnish (see, for example Aboh (2004) for an overview of this general approach) and thus further realizing the idea embedded in the USH of similar structures recurring throughout different domains. For the purposes here, though, it suffices to take *-hAn* and *-pA* to occupy very peripheral positions in the nominal structure, as shown in (97).

From here, the derivation proceeds as outlined above for *-kO*: the [uFoc] feature on the particles probes for a matching [Foc] feature, triggers movement of it and pied-pipes a subconstituent of KP. Where the derivations for the particles and *-kO* diverge is that while *-kO* carries an interpretable *wh*-feature, *-hAn* carries an interpretable addressee feature, [*i*A orientation], and *-pA* an interpretable speaker feature, [*i*S orientation]. Furthermore, I assume that *-hAn* carries a speaker feature as well, given Thoma's (2016) argument that addressee orientation is always mediated through the speaker. These features serve as the goals for their uninterpretable counterparts in the Grounding Layer, triggering movement to GroundAP and GroundSP, respectively, with a *-hAn* phrase stopping off at GroundSP before its final position in GroundAP. This part of the derivation is illustrated in (98) for the phrase in (97) carrying *-hAn*:

(98)



This sets the Finnish particles apart from the Japanese ones, discussed below. As the following discussion will show, the Japanese discourse particles are analyzed as occupying heads in the high right periphery of the clause and, crucially, being merged there directly instead of attaching initially to a constituent at the phrasal level. The

Finnish ones, then, have a dual function with both focus- and speech act-related features, reflected in their initial merge position at the phrasal level.

3.3.3.4 Interim summary

It should be noted that analyzing *-hAn* and *-pA* as heading their own projections opens something of a Pandora's Box of left peripheral projections, as this approach leaves the particles *-kO* and *-s* unaccounted for. Under the current analysis, Huhmarniemi's (2012) idea (see section 3.3.2) that *-kO* and *-pA*, as well as *-hAn* and *-s* are instantiations of different values of one feature can no longer hold. It is unclear whether and how *-kO* as a focus particle à la Holmberg (2014) interacts with the Grounding Layer, and there is nothing in the meaning of *-s* that would suggest A orientation.[40] Granting *-pA* and *-hAn* their own projections would thus mean finding a new home for *-kO* and *-s* as well instead of the unitary C projection. At the same time, the reason for the co-occurrence restrictions would have to be re-evaluated: as none of the particles now compete for the same syntactic position, another method for preventing the unobserved combinations has to be found. This could arise from either semantic or syntactic considerations. In Bavarian, unlike Finnish, A- and S-oriented discourse particles cannot co-occur. Thoma (2016) tentatively suggests a blocking principle to account for this: A belief is mediated via the speaker, so that both A and S belief are types of S belief, and it may not be permissible to express two different types of S belief. However, the Finnish facts show that this cannot hold as a universal semantic condition. A proper analysis of these restrictions goes well beyond the discussion here, as it requires a more thorough analysis of the other particles.

What the data do show so far is that restricting the Finnish left periphery to a single C head hosting all the second position clitics alongside contrastive and wh-elements is untenable, and that an additional layer for discourse-related notions is at least conceptually desirable. This analysis, along with the central role of S and A orientation, reflects the research done on languages such as German dialects (Thoma,

[40] The exact nature of *-s* in this respect is also challenging to test as it appears only attached to wh-words and the particle *-pA* (as noted in section 3.2), so that its uses will always be affected by these elements as well.

2014, 2016) and Cantonese (Lam, 2014) within the USH framework. However, there is nothing in the framework that necessitates the presence of specific projections cross-linguistically. On the contrary, the USH allows for cross-linguistic variation in what categories languages project syntactically and how they do so. It is also empirically unclear whether different discourse particles within and across languages should even be analyzed using the same model: based on German, Zimmermann (2011:2024) argues that "the quest for a unified semantic analysis of all discourse particles, or even for a set of necessary properties [--] may be in vain," while Davis (2011:14) notes that "individual particles must be studied in some detail before a general theory of "discourse particles" is to be proposed, and any attempt at such a general theory might in fact be misguided."

An interesting point of comparison here comes from Japanese: although its discourse particles are superficially similar to the ones discussed above in terms of realizing S- and A-oriented functions, they reflect a more articulated structure, encoding more specific notions than their Finnish counterparts.

3.4 A Japanese parallel

Japanese hosts a rich inventory of elements in its right periphery with a variety of semantic roles (Davis, 2011). These elements obey strict ordering requirements when they co-occur; they also show different degrees of embeddability, with the number of potential embedders decreasing the further right the element occurs in the right periphery. In the following, I will discuss two approaches to the sentence-final particles assumed to occupy the rightmost proportion of the periphery: Ogi's (2017) analysis concerns the pragmatics of the particles, while Saito and Haraguchi (2012) focus on their syntactic encoding in a cartographic framework. My aim is to show that combining these two strands of existing work brings out novel perspectives to the syntactic encoding of the particles and to the Japanese right periphery in general.

The focus here will be on the sentence-final particles *ne*, *na*, *yo, sa*, *wa*, *zo*, and *ze*, the functions of which will be elucidated below. These seven are by no means the only

ones in the category of sentence-final particles,[41] and they also do not form a natural class; however, restricting the discussion to them is justified by their frequent occurrence in natural speech and the fact that they have been collectively targeted in previous analyses (Ogi, 2017). I will first discuss the pragmatic import of the particles and show how they rely on the notion of involvement and how this translates into the notions of A and S orientation adopted for Finnish above. Then, closer scrutiny of the pragmatics and syntactic behaviour of a sub-selection of the above-mentioned particles – *wa*, *yo*, *ne*, and *na* – in Saito and Haraguchi's (2012) and Saito's (2013) work shows that they require a structurally more refined cartographic analysis than one with a simple divide between S- and A-oriented projections, as argued above for Finnish. Finally, I will argue that the precise location of the structure hosting the particles ought to be re-evaluated, returning to independent arguments for an additional speech act-related layer in Japanese.

3.4.1 What the particles do – cartography with an attitude

Just like their Finnish counterparts, the meanings and pragmatic contribution of the Japanese particles can be best characterized as vague, as is expected if, in line with the USH, they are lexically underspecified and contextually determined. Ogi's (2017) interactional and Saito and Haraguchi's (2012) and Saito's (2013) cartographic framework offer a systematic approach to the particles' meanings and structural behaviour, respectively, which will serve as the baseline for the discussion here.

Ogi (2017) approaches the pragmatic contribution of the particles through the notion of involvement, proposing a dichotomy between incorporative and monopolistic attitudes. Ogi defines involvement "as a fundamental element for the initiation and maintenance of interaction, which can in particular be created by the expressions of the conversational participants' feelings/ emotions and attitudes through various

[41] Other particles defined as belonging to the sentence-final category include *ka* (question particle), *ya* (softening a statement, request, or suggestion), *no* (emphatic/ informal interrogative, indirect imperative), *kashira* (uncertainty, request, question), *mono* (reason or excuse) (Suzuki, 1976 cited in Ogi, 2017:15), *kedo* (but), *tomo* (assertion), *ke* (uncertainty, question), and *koto* (emotion, suggestion, invitation) (Kokuritsu Kokugo Kenkyuujo, 1951 cited in *ibid*.:15), for example.

linguistic strategies" (p.65). As interactive markers, the particles express the speakers' marked interactional attitude towards the hearer, encoding what attitude the speaker is inviting the hearer's involvement with. The relevant attitude can be characterized as either incorporative or monopolistic, as per Lee (2007 cited in *ibid*:73):

(99) a. Incorporative
The speaker's attitude of inviting the addressee's involvement through which he/she is committed to align with the addressee with respect to the content and feeling conveyed in the utterance; in other words, alignment of the speaker's and addressee's perspectives is key here.

b. Monopolistic
The speaker's attitude of inviting the addressee's involvement through which he/she is committed to enhance his/her position as a deliverer of the content and feeling towards the addressee.

The particles *ne* and *na* encode incorporative attitude, while the other particles – *yo*, *sa*, *wa*, *zo*, and *ze* – mark monopolistic attitude. The difference between the two attitudes is exemplified in (100):

(100) a. Eiga, omoshirokatta **ne**.
movie interesting-PST *ne*
Lit. "The movie was interesting."
"I think that the movie was interesting. Don't you think so?"

b. Eiga, omoshirokatta **yo**.
movie interesting-PST *yo*
"Listen. I tell you that the movie was interesting."
(from *ibid*.:72-73)

While the propositional content in the utterances is the same, they differ with respect to the speaker's attitude to inviting the hearer's involvement. In (100a) with incorporative *ne*, the speaker encourages the hearer to align with their positive opinion of the film. In (100b) with monopolistic *yo*, in contrast, the speaker intends to

show that they are in a superior position over the hearer with respect to the film by enforcing their position as the deliverer of a positive evaluation of the film.

A question that arises is whether incorporative and monopolistic attitudes are primitives that could be projected as such in the syntax, or whether they can be understood as manifestations of notions used to analyze discourse particles in other languages. An obvious point of comparison here is A and S orientation: incorporative attitude capitalizes on the notion of alignment of the speaker's and addressee's beliefs, hence being very much an A-oriented notion, while monopolistic attitude focuses on the speaker's role in delivering the information, hence being more S-oriented. Furthermore, intuitively speaking in the examples in (100), incorporative *ne* in (100a) clearly involves the addressee, while *yo* in (100b) comes across as more speaker-oriented.

However, testing incorporative *ne* and monopolistic *yo* in the same contexts as the Finnish examples above shows that the Japanese particles cannot be recast straightforwardly in terms of pure A and S orientation, at least on Thoma's (2016) definition. In (101), the context is set up so that Yuki can assume that her mother holds a prior belief about the proposition she expresses; here, A particles are expected to be felicitous.

(101) Context: Yuki comes home from university later than usual. She tells her mother that she had a big dinner with her friends, and is absolutely full. Half an hour later, her mother has finished cooking dinner and calls Yuki to the dining room to eat. Yuki says:

a. # Bangohan o mou tabeta **ne**.
dinner ACC already ate *ne*

b. Bangohan o mou tabeta **yo**.
dinner ACC already ate *yo*
"I've already eaten."

The response with *ne* is rejected, while the one with *yo* is felicitous. A reason given by an informant is that *ne* in this context conveys a tag question and as giving new information, while *yo* is neutral in this respect. The same acceptability pattern emerges for (102), where the proposition expressed is new information to the addressee.

(102) Context: Yuki comes home from university later than usual. Before she has time to explain where she has been, her mother says that dinner is ready. Yuki explains that she has already eaten by saying:

a. # Bangohan o mou tabeta **ne**.
dinner ACC already ate *ne*

b. Bangohan o mou tabeta **yo**.
dinner ACC already ate *yo*
"I've already eaten."

It would seem then that the particles cannot be accounted for by a simple division into S versus A orientation. This does not mean, however, that these notions cannot be used to describe the particles at all; rather, it may be the case that the particles carry more specific pragmatic import than their Finnish counterparts, so that they require more specific conditions for their use than Thoma's tests can capture.

This is supported by the observation that the particles are not in fact synonymous with the other members of their respective incorporative and monopolistic categories. Rather, the notions of incorporative and monopolistic attitudes function as higher-order pragmatic functions that are further divided into more specific interpretations. Each particle carries additional pragmatic import, as is apparent from Table 3.

Marker	Function
ne	*Ne* signals the speaker's incorporative attitude of aligning with the addressee with regard to the content and feeling conveyed in the utterance.
na	*Na* signals the speaker's incorporative attitude of aligning with the addressee with regard to the content and feeling conveyed in the utterance. It further denotes the speaker's attitude of sharing a camaraderie with the addressee.
yo	*Yo* signals the speaker's monopolistic attitude of ensuring that the addressee understands the content and feeling conveyed in the utterance.
sa	*Sa* signals the speaker's monopolistic attitude of presenting the content and feeling conveyed in the utterance as a matter of course for him/her.
wa	*Wa* signals the speaker's monopolistic attitude of delivering the content and feeling conveyed in the utterance in a firm manner.
zo	*Zo* signals the speaker's monopolistic attitude of urging the addressee to understand an implied message in connection with the given context.
ze	*Ze* signals the speaker's monopolistic attitude of enhancing the addressee's understanding of the speaker's belief that the content and feeling conveyed in the utterance should be shared with the addressee.

Table 3. The semantics and pragmatics of Japanese discourse particles (Ogi, 2017)

These meanings beyond the basic incorporative-monopolistic distinction offer a basis for a more refined analysis of the structural properties of the particles. Saito and Haraguchi (2012) and Saito (2013) argue for a cartographic analysis of the Japanese right periphery drawing on the behaviour of the particles *wa*, *yo*, *ne*, and *na*. The basis for the analysis is provided by Endo's (2010 in Saito and Haraguchi, 2012:111-115) typology of the meanings of the particles and their related clausal heads; these meanings are in line with the pragmatic effects identified by Ogi.

The pragmatic effect of *wa* can be described as 'I mildly insist that…', i.e. carrying a clearly monopolistic effect; Davis (2011) further argues that in addition to marking

these kinds of 'soft assertions', it also contributes a sociolinguistic or expressive meaning to the utterance, and is used mainly by older women. It is incompatible with epistemic modals such as *daroo* 'will, I guess':

(103) Hanako wa kuru daroo (***wa**)
Hanako TOP come will *wa*
"Hanako will come."

(from *ibid.*:112)

Based on this co-occurrence restriction, Endo argues that *wa* heads an epistemic projection. Davis (2011), on the other hand, argues that *wa* is a declarative force marker that contrasts with the default null marker. I will return to a more exact take on the nature of *wa* below in Saito and Haraguchi's (2012) terms.

Yo is taken to be an evaluative head, roughly translating into an equally monopolistic 'I am telling you that…' It marks the relevance of the asserted content to the addressee, information that the speaker assumes is new to the addressee, or that the speaker thinks that the addressee has forgotten, or a sense of urgency or insistence (Davis, 2011).

Na and *ne* can be characterized as soliciting a response, an incorporative function in Ogi's terminology. Importantly, however, they differ in that only the former can be used when talking to oneself:

(104) Dekaketa **na**/**ne**
went.out *na*/*ne*
"It looks like s/he/they went out."

(from *ibid*.113)

In a situation where someone enters their apartment and finds it empty, the utterance in (104) can be used with *na* even when the speaker is alone. With *ne*, the utterance could only be used if, for example, the speaker is accompanied by another person and the utterance is used to address them. Endo classifies *na* as an evidential head and *ne* as a speech act head. I will return to the self-talk function of *na* in section 3.5 below.

However, it should be noted that soliciting a response is not the core function of *ne* and *na* in the sense that they could be taken as a type of question marker. That this is the case is suggested by Ogi's description of them in Table 3 above where they are taken to encode the speaker's incorporative attitude of aligning with the addressee with regard to the content and feeling conveyed in the utterance. This is illustrated in (105):

(105) A: Kyoo wa ii tenki desu **ne**.
today TOP good weather COP *ne*
"It's a fine day today, isn't it."

B: Soo desu **ne**.
so COP *ne*
"Yes, it is."

(from *ibid*.:92)

Here, A seeks B's agreement with their statement about the weather being nice by using *ne*. In B's response, *ne* is used to show B's agreement with A's feeling. Thus, what these two instances of *ne* share is not soliciting a response as such, but aligning the speaker's and addressee's beliefs. Ogi notes that without *ne*, the utterances would not deliver the interlocutors' intentions of involving the other; rather A's statement would come across as a report of the weather to B who is not aware of the weather conditions, and B's response would merely acknowledge A's judgement about the weather as correct. The observation that *ne* expresses speaker and addressee alignment as its core function rather than solicits a response is an important one, because if the particle merely called on the addressee to respond in a certain way, it could be analyzed as a marker confined to a projection encoding this function rather as something A-oriented in the sense of Ogi and in the sense argued for the Finnish particles above. Terminologically, the notion of asking the addressee to respond in a certain way corresponds to Beyssade and Marandin's (2006 cited in Wiltschko and Heim, 2016:18) Call on Addressee; a more formal discussion follows in chapter 5.

That other particles, too, may have an additional function relating to how they require the addressee to respond, is suggested by Endo's (2012) discussion of them. Endo

capitalizes on the idea that by using the particles, the speaker is, to different extents, placing expectations on the addressee. One key function of the particles is thus, according to Endo, an expectation criterion, i.e. the speaker's expectation of how the addressee should deal with the proposition in regard to their own knowledge and experience. This expection varies in its intensity, giving intensity of expectation as another descriptor of the particles' function. Consider the examples in (106):

(106) a. John ga itta **wa**.
John NOM went *wa*
"John went."

(from *ibid*.:406)

b. Kimi mo party ni kuru **ne**.
you also party to come *ne*
"You are also coming to the party, aren't you?"

(from *ibid*.:408)

Endo argues that (106a) with *wa* can be used in a monologue or in a conversation where no answer from the addressee is expected, while with *ne*-marked utterances such as (106b) the speaker signals confirmation of the utterance, but usually also expects to get a response of agreement from the addressee. In Endo's terminology, this makes *wa* speaker-oriented and *ne* addressee-oriented or interpersonal; in my framework, however, the differences in what the addressee is expected to do correspond to different Calls on Addressee. The divergence in terminology is particularly clear from Endo's treatment of *yo*. According to Endo, *yo* is an interpersonal particle based on the observation that it can create an expectation of a response. However, at the same time Endo defines its function as expressing "an evaluation of a proposition from the speaker's point of view" (*ibid*.:407), which here is clearly a speaker-oriented use. Therefore, I take Endo's interpersonal particles to place a Call on Addressee, which, in my framework, is separate from their A- or S-oriented functions, the focus here. What is relevant to the current discussion is precisely the observation that the particles can have other functions in addition to their basic A- and S-oriented, or incorporative and monopolistic, ones; this is much like the softening effect the Finnish particles have on interrogatives and imperatives. The

focus here is on the A- and S-oriented functions of the particles; that Call on Addressee is a syntactically relevant notion is the topic of chapter 5, where I discuss it with respect to the question marker *-ka*.

Additional functions and terminological differences aside, some of the particles can co-occur, but only in a fixed order:

(107) Hanako wa soko-ni ita **wa yo ne**.
Hanako TOP there-at was *wa yo ne*
"Hanako was there."

(from Saito, 2013:139)

The particles *na* and *ne* are mutually exclusive because of their meaning contributions, as described above.

Saito and Haraguchi (2012) and Saito (2013) argue that this ordering arises from the particles' selection restrictions. *wa* selects T, and must therefore occupy the lowest position in the sequence of discourse particles and cannot follow any other discourse particle. *Yo*, on the other hand, takes TP and ModP complements, and may follow *wa*. It combines with an expression of assertion, so that its complement must be capable of expressing assertion. Hence, it cannot select a complement with *ne* or *na*, as these particles, according to the authors, carry the speech act of soliciting a response; however, in line with the discussion above on Ogi's take on *ne* and *na*, this can be equally understood as a restriction against *yo* selecting a complement that seeks alignment between the discourse participants' beliefs, as such an utterance will also be less assertive. What emerges is the hierarchy in (108):

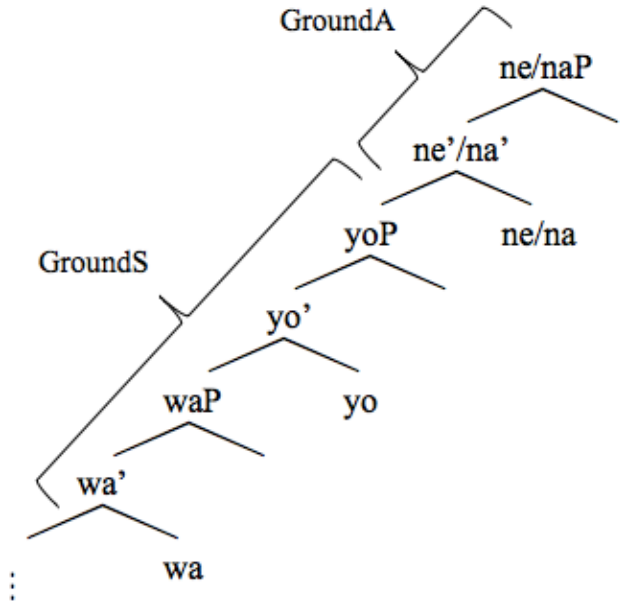
(108) [[[$_{TP}$ wa] yo] ne/na]

(from Saito, 2013:142)

Saito and Haraguchi and Saito's cartographic analysis of the four particles is appealing in accounting for their pragmatic import as well as their co-occurrence restrictions. However, it does not exclude Ogi's insights from being encoded in the structure as well. Importantly, the incorporative, or A-oriented, *ne* and *na* occur on the

rightmost edge of the structure in (108), while monopolistic *wa* and *yo* occur hierarchically lower down. Hence, it is possible to take *wa* and *yo* to be instantiations of an articulated speaker-oriented layer – in the terminology adopted here, GroundS – while *ne* and *na* instantiate a higher addressee-oriented layer, or GroundA. The proposal is illustrated in (109):

(109)



This structure captures the clear intuition from Ogi's work that despite their more specific individual functions, the particles encode a higher-level distinction of A and S orientation, or incorporative and monopolistic marking. It also shows a crucial distinction between Finnish and Japanese: while in Finnish, GroundA and GroundS are fairly unarticulated in being instantiated by only *-hAn* and *-pA*, respectively, in Japanese they are more articulated. The projections in (109) are labelled as the individual particles; as each particle occupies its own head, each projection is best desribed as such, capturing the particles' unique functions as discussed above. Of course, closer scrutiny of other sentence-final particles in Japanese will be needed to map out the structure more precisely.

Now, the question arises whether there is evidence for such discourse participant-related layers in Japanese; after all, in Saito and Haraguchi (2012) and Saito (2013) no such structure is discussed. My take on the question – the answer being yes – will be given in two parts. First, in section 3.4.2 I will discuss evidence showing that a speech act-related layer is independently motivated for Japanese. Then, in the following

chapter, I will draw on evidence from the notion of contrast to show that the discourse particles behave differently in crucial ways from discourse-related notions assumed to occupy the CP.

3.4.2 Layering up again – speaker and addressee in the Japanese right periphery

The first piece of independent evidence for a dedicated speech act-related layer in Japanese comes from Tenny (2006), as discussed in chapter 2. To recap, Tenny argues for an additional Speech Act layer – in the terminology adopted here, the Grounding Layer – in Japanese, drawing on evidence from person constraints with predicates of direct experience. These predicates require that their subject be first or second person, or some combination of them, and that the person of the subject has to agree with the speech act. The key data are repeated in (110):

(110) a. Watashi/ *anata/ *kare wa samui desu.
I you he TOP cold COP
"I am cold./ *You are cold./ *He is cold."

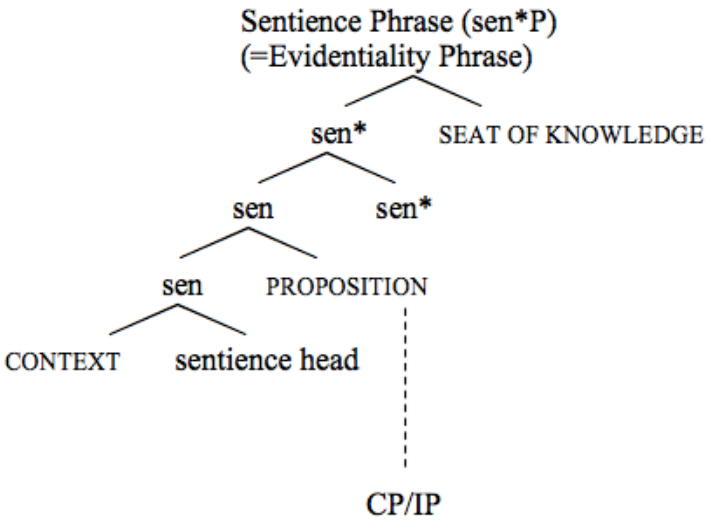
b. *Watashi/ anata/ *kare wa samui desu ka?
I you he TOP cold COP Q
"*Am I cold?/ Are you cold?/ *Is he cold?"

(from *ibid*.:247)

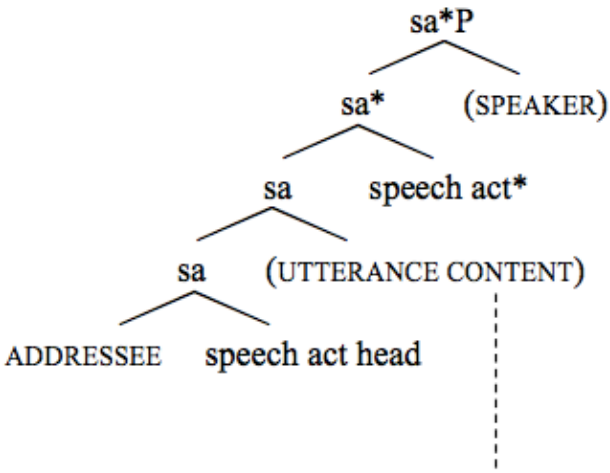
In declarative sentences, the subject of stative predicates of basic sensation and experience – here *samui* 'cold' – is restricted to the first person, as in (1110a). In questions, on the other hand, they require a second person subject.

To account for this behaviour, Tenny argues for two additional projections above the CP: a Sentience, or Evidentiality, Projection, dominated by a Speech Act Projection. The structures are repeated from chapter 2 in (111a) and (111b), respectively:

(111) a.



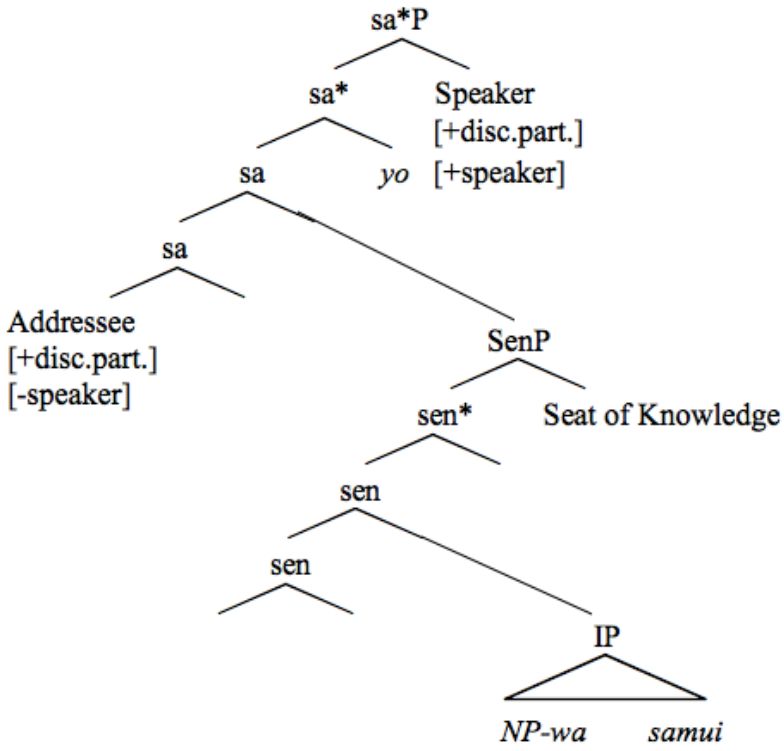
b.



(from *ibid*.:260-261)

The Evidentiality Projection attaches to the higher sa head, and as such is c-commanded by the speaker but not by the addressee when no movement has taken place. This is the case in declaratives, such as (112):

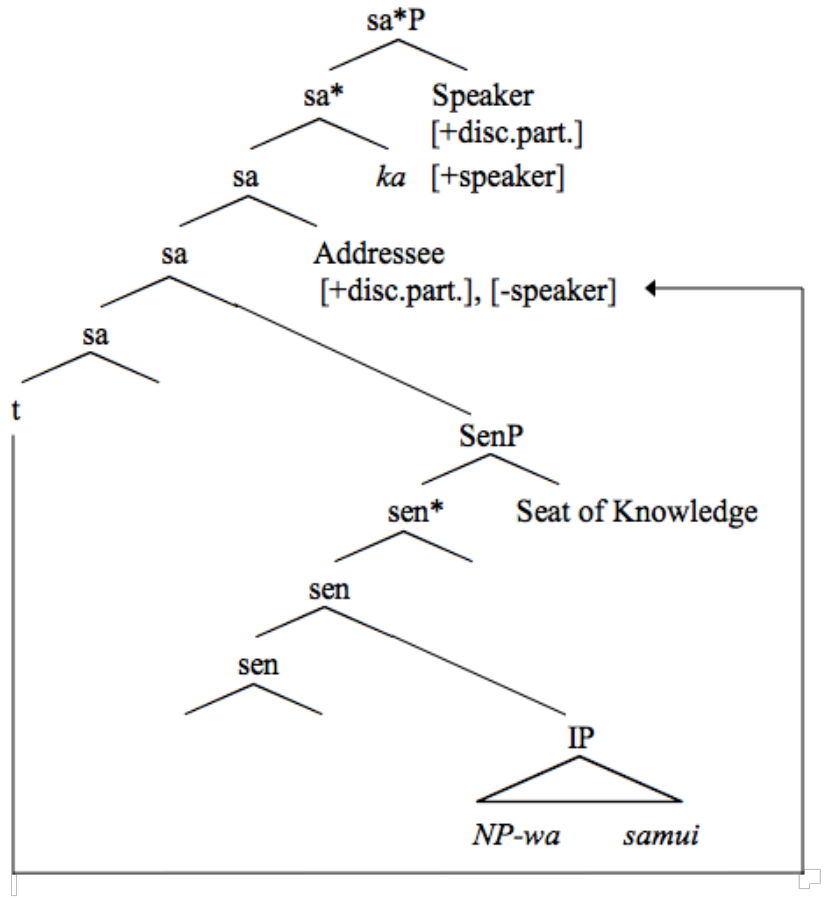
(112)



(from *ibid*.:263)

In interrogative sentences, on the other hand, the addressee has to be higher in the structure than the Evidential Projection so that the relevant predicate of experience has it rather than the speaker as its closest c-commanding potential subject. This is achieved by what Tenny dubs an interrogative flip: a kind of passivization in the Speech Act layer whereby the addressee moves up in the structure, as illustrated in (113):

(113)



(from *ibid*.: 263)

Tenny's conceptualization of the higher portion of the right periphery serves to show how postulating a Speech Act layer can account for certain Japanese data that would remain puzzling otherwise. However, I do not commit to Tenny's model of the Japanese right periphery but rather just use it to show that the speaker and addressee need to be formally represented to account for the data. While Tenny's approach captures the S- and A-oriented layers argued for in the previous section – just as the Grounding Layer approach adopted here does – in section 5 I will consider data it cannot account for.

Another piece of evidence for a Speech Act layer comes from Miyagawa's (2012) analysis of politeness marking in Japanese. I will only give a brief overview of the arguments here, as I will return to the analysis, and some problems posed by it, in more detail in chapter 5. Consider (114):

(114) a. Peter wa hataraki-mas-i-ta.
Peter TOP work-POL-PST

b. Peter wa hatarai-ta.
Peter TOP work-PST
"Peter worked."

(from *ibid*.:86)

In (114a) with the politeness marker *-mas-*, the speaker intends to be polite to the addressee, while in (114b) with the plain, *-mas*-less form, the speaker conveys the informal nature of the speaker-addressee relationship.

Miyagawa (1987 in *ibid*.:87) argues that the politeness marker is a form of allocutive agreement: parallel to the cases of allocutive agreement discussed in the previous chapter, this implies the syntactic encoding of speech act participants and taps into the intuitive idea that the politeness marker is related to speakers and addressees, and must face 'out' of syntax and into speech act structure.

As such, postulating a Grounding Layer in Japanese is both conceptually and empirically speaking a valid step to take. Given the nature of the discourse particles, and especially their contribution to encoding the speaker's incorporative and monopolistic attitudes, this structure can be hypothesized to play an important role with them as well; more solid empirical evidence for the particles occupying a layer above CP will follow in the next chapter.

3.5 A note on self-talk

As was discussed in the previous chapter, Sigurðsson (2017) makes a strong case for the speaker not corresponding straightforwardly to *I* and the addressee to *you*. A question not addressed so far is what types of speakers and addressees the particles discussed above can relate to. An interesting test case here is self-talk (or intrapersonal communication or inner dialogue), which is "when you talk to yourself, audibly or inaudibly" (Holmberg, 2010a:57). In self-talk, the self is both the speaker and addressee, and it is possible to use both 'I' and 'you' to refer to the self. However,

the two are not freely interchangeable: Holmberg distinguishes between two aspects of the self, "one controlled by the mind, with thoughts and feelings and engaging in activities that are wholly transparent and predictable" (p.60), while the other is a mindless self, not controlled by the speaker.[42] The latter can be referred to by both *I* and *you*, while the former can only be referred to by *I*. This is shown in the contrast between (115) and (116):

(115) a. I think I've had it.

b. I think you've had it.

(116) a. * You think you've had it.

b. * You think I've had it.

(from *ibid*.:59)

Here, the matrix subject pronoun must be *I* as the matrix verb is a verb of thinking. The embedded subject, on the other hand, is a 'mindless self', and hence either *you* or *I* is possible. This serves to show that self-talk contexts pose restrictions on how the speaker and addressee can be referred to that are not evident from normal dialogue contexts. The question arises whether there are any restrictions to the phenomena discussed above when they are transferred to self-talk contexts. In the following, I present some preliminary evidence based on (some of the) Finnish and Japanese discourse particles as well as politeness marking.

As in Holmberg's analysis, in Finnish it is possible to use both *I* and *you* in self-talk, when the self is 'mindless'. This is illustrated in (117):[43]

[42] How mindless the mindless self is is a matter of some debate, although it does not affect the discussion here. Sigurðsson argues that Holmberg overstates its mindlessness, as it still has a capacity of perceiving, and is therefore not like a lifeless thing; or, as Sigurðsson puts it, "[i]nsulting or encouraging it is thus not pointless or an expression of madness, as insulting or encouraging a table or a pen would be in most situations in most cultures" (p.206).

[43] All informants prefer the *I* sentences, although the *you* ones are not unacceptable, either.

(117) The swimming pool is extremely busy. There are four people swimming slowly in front of you, chatting to each other and effectively blocking the lane. After half an hour of suffering the situation, there is no change, and you decide that something must be done. You say to yourself:

a. Nyt kyllä sanon niille!
now yes say-1SG them-ALL
"Now I'll tell them!"

b. Nyt kyllä sanot niille!
now yes say-2SG them-ALL
"Now you'll tell them!"

This established, I turn to the particles *-pA* and *-hAn*. As a speaker-oriented element, *-pA* is expected to be freely available in self-talk contexts. This is shown in (118) and (119):

(118) You have agreed to go and see a film at 7. You turn up at the cinema bright and early at 7am, only to discover that you are the only person there and that the showing is in fact at 7pm. You say to yourself:

a. Olen-**pa** mä tyhmä!
be-1SG-*pA* I stupid
"How stupid I am!"

b. Olet-**pa** sä tyhmä!
be-2SG-*pA* I stupid
"How stupid you are!"

(119) Your local library has advertised that they are giving away free memory sticks as part of a campaign to get people to read more. You pop in as you pass the library in the afternoon, but the memory sticks have run out. You say to yourself:

a. Mitä-**pä** mä sillä olisin tehnytkään!
what-*pA* I it-ADE have-COND done-*kAAn*
"What would I have done with it, anyway!"

b. Mitä-**pä** sä sillä olisit tehnytkään!
what-*pA* you it-ADE have-COND done-*kAAn*
"What would you have done with it, anyway!"

In (118), *-pA* occurs in a declarative uttered as an exclamation. In (119), it occurs on a wh-element, forming a rhetorical question. In both cases, *-pA* is compatible with both a first and second person pronoun. This is expected of an S-oriented element: the speaker is always present in self-talk contexts, irrespective of whether the mindless self is addressed as *you* or *I*.

The A-oriented *-hAn* raises the question whether the self as addressee is sufficient to allow its use. The data show that it is, *-hAn* showing the same acceptability pattern as *-pA*:

(120) You are playing a single player online version of *Trivial Pursuit*. Most of the questions are impossible, but then your favourite TV series appears as a topic. You say to yourself:

a. Tän-**hän** mä tiedän!
this-ACC-*hAn* I know-1SG
"Hey, I know this one!"

b. Tän-**hän** sä tiedät!
this-ACC-*hAn* you know-2SG
"Hey, you know this one!"

(121) At the checkout of a luxury chocolate shop, it transpires that you can get a mini chocolate truffle from their new range for only £2 with your purchase. There are two options available. You say to yourself:

a. Kumman-**han** mä ottaisin?
which-ACC-*hAn* I take-COND-1SG
"Which one should I take?"

b. Kumman-**han** sä ottaisit?
which-ACC-*hAn* you take-COND-2SG
"Which one should you take?"

In (120), *-hAn* occurs in a declarative uttered as an exclamation, while in (121) it appears on a wh-word in a rhetorical question. Again, it can be used with either the first or second person pronoun. Based on this, it would seem that the Finnish particles do not distinguish between an addressee that is also the speaker and an addressee that is not the speaker.

An interesting contrast to this is provided by the Japanese particles *ne* and *na*, discussed above in section 3.4.1. Both particles have a function of soliciting a response, but they differ in that only *na* can be used when talking to oneself (Saito and Haraguchi, 2012). The relevant data are repeated in (122):

(122) Dekaketa **na**/**ne**
went.out *na*/*ne*
"It looks like s/he/they went out."

(from *ibid*.113)

In a situation where someone enters their apartment and finds it empty, the utterance in (122) can be used with *na* even when the speaker is alone. With *ne*, the utterance can only be used if the speaker is accompanied by another person and the utterance is used to address them. Saito and Haraguchi account for the difference by taking *na* to address both the speaker and addressee and *ne* only the addressee; as the speaker and addressee are the same in self-talk contexts, this means that *na* will be accepted. It would seem then that the addressee in self-talk contexts is not the right type of addressee to license the use of *ne*: this could have to do with the response-seeking function of *ne* tapping into the knowledge of an independent mind, i.e. not that of the speaker themselves. Crucially to the discussion here, the distinction between *na* and

ne with respect to self-talk contexts shows that certain speech act phenomena are sensitive to the difference between the addressee in self-talk and other dialogue contexts, unlike the A-oriented Finnish *-hAn*.

Another case which shows this sensitivity is that of politeness marking in Japanese. In self-talk contexts, politeness marking is absent. Consider (123):

(123) You share your kitchen with several people. One night, you walk in to discover that the house is empty and that the kitchen has been left in a complete mess. You say to yourself:

a. Dare ga yatta?
who NOM did

b. # Dare ga yari-mas-ita ka?
who NOM do-POL-PST Q
"Who did this?"

c. Ranzatsu da.
mess COP

d. # Ranzatsu desu.
mess POL.COP
"It's a mess."

In (123a), the predicate *yatta* appears in its short form without politeness marking, and the question is formed without an overt interrogative marker,[44] while in (123b) the politeness marker *-mas-* is present in *yarimasita*, which is followed by the question particle *ka*. The former but not the latter is accepted in self-talk contexts. The same acceptability pattern is repeated in declaratives, where in the acceptable (123c) the plain form of the copula, *da*, is used, while in the non-accepted (123d) the polite form *desu* appears. This state of affairs is expected from a pragmatic or socio-linguistic perspective: politeness marking is not expected when addressing oneself.

[44] I return to the nature of *ka* in chapter 5.

This brief discussion shows that S- and A-oriented phenomena differ with respect to how they relate to an addressee that is the self. While Finnish addressee-oriented *-hAn* and Japanese response-soliciting *na* are possible in self-talk contexts, Japanese *ne* and politeness marking are not. Self-talk, then, can shed light onto the contextual requirements of certain phenomena and what kinds of addressees they can orient to.

Observing these contextual requirements raises the question of what kind of formal distinctions underlie them. It is well recognized (for example, Harley and Ritter, 2002) that pronouns are not indivisible units but are rather collections of features. For instance, there is a fundamental difference between third person pronouns, on the one hand, and first and second person ones, on the other; first and second person pronouns are often similar in their form and inflection but dissimilar to third person pronouns, and the third person is more likely to show subdivisions based on class, gender and locations, among other things. This can be captured by taking the first and second persons to carry the feature [participant], while the third person lacks this feature. Without committing to a specific framework of pronominal features, I propose that the differences observable in the Finnish and Japanese self-talk data reflect differences in what features their A-oriented phenomena are sensitive to.

In Finnish, for *-hAn* to appear the presence of an addressee is sufficient, and it does not matter whether the addressee is also the speaker or not, as in self-talk. Here, I assume, along with Harley and Ritter, that one possible feature specification for pronouns is [participant], as noted above, which is further subdivided into [speaker] and [addressee]. Now, an addressee in non-self-talk contexts is characterized as [+addressee] and [-speaker], while a self-talk addressee is also the speaker, hence [+addressee] and [+speaker]. As the A-oriented *-hAn* can occur with either, A orientation in Finnish can be argued to be sensitive to elements with the feature [+addressee]; depending on the eventual notation adopted, the [speaker] feature can be absent from the specification or be defined as [±speaker]. In Japanese, on the other hand, a different specification is needed. The particle *ne* and politeness marking can only occur with an addressee that is not the speaker, i.e. one that carries the features [+addressee] and [-speaker], thus excluding the self-talk addressee.

While a detailed exploration of the Finnish and Japanese pronominal systems is beyond the scope of the discussion here, it should be noted that the observations made based on the self-talk data may well have correlates elsewhere in the grammar. Take null arguments, for instance: in Finnish, only first and second person subjects can be dropped freely (as will be discussed in more detail in chapter 6), while in Japanese any argument can be dropped. Here Finnish capitalizes on the [participant] feature, in that only the persons that are discourse participants can be null. While the idea of A orientation necessarily involves the addressee, it was shown that in Finnish further subdivisions in the addressee category do not matter. As such, Finnish is could be taken to be more oriented towards the notion of [participant] than Japanese is, where the [participant] category shows sensitivity to further subdivisions. Interestingly, Japanese null arguments are not conditioned by the notion of [participant] as any argument can be dropped under the right discourse conditions. Thus, the notions of speakers and addressees show cross-linguistic variation in what features they are sensitive to, and this may well be reflected in other domains of the grammar as well.

3.6 Conclusion

The discussion in this chapter poses questions for both Finnish and Japanese, as well as discourse syntax in a more general, cross-linguistic context. Sections 3.2 and 3.3 called for a refinement of the Finnish left periphery based on evidence from discourse particles. A first pass at a more elaborate structure was made along the lines of the USH, postulating a Grounding Layer above the CP with dedicated projections for the speaker and addressee. Section 3.4, in turn, showed that similar questions in the Japanese context lead equally to a need to reconsider the encoding of discourse elements in the Japanese right periphery. Based on a reconsideration of Saito and Haraguchi's (2012) and Saito's (2013) cartographic approach to four sentence-final particles in terms of Ogi's (2017) pragmatic approach, I argued that the articulated Japanese right periphery can be taken to reflect S- and A-oriented layers. What this shows from a cross-linguistic perspective is variation in the articulation of certain shared layers as well as the types of more specific functions elements attached there can realize; such variation is predicted in the USH framework. Finally, section 3.5 showed that the S- and A-oriented phenomena differ in how they relate to an

addressee that is not the self, pointing out points of variation in what pronominal features the languages are sensitive to.

As was noted in chapter 2, in order to determine where a UoL appears in the structure entails determining both its absolute and relative position, according to the USH. This chapter has focused on the function of the discourse particles and proposed a hypothesis regarding their absolute position based on this. The next chapter turns to their relative position: following the USH, not all sentences are the same with respect to their size, as not all structure is projected in all contexts. I will argue that there is an important divide between information structure encoded in the CP and more directly speaker- and addressee-related structure represented in the Grounding Layer. This will become clear from aiming the empirical focus at the differences between the discourse particles discussed above and the expression of contrast in the two languages.

Chapter 4 Setting boundaries: the separation of the Grounding Layer

4.1 Introduction

The previous chapter laid out the proposal that the Finnish and Japanese discourse particles have to be understood, at least partially, via the notions of speaker and addressee, and that this calls for an extra layer of syntax in the languages' respective left and right peripheries, in accordance with the USH (Wiltschko and Heim, 2016). The evidence for the proposal came largely from functional considerations, as according to the USH the function of a unit of language (UoL) serves as a key diagnostic for its absolute position. As was noted there, though, this is only half of the story. To determine the exact placement of a UoL on the syntactic spine, its relative hierarchical position with respect to other elements also has to be considered. This chapter therefore takes a new, relativized perspective to the dual mission started in the previous one: to establish the syntactic encoding of the discourse particles in Finnish and Japanese, and to understand the repercussions this has for speech act syntax and its cross-linguistic variations.

The relative position of the particles is discussed here with respect to the notion of contrast. Both Finnish and Japanese encode contrastive topics and foci syntactically, as will be shown below. The relevance of contrast derives from the observation that it need not be encoded in a speech act-related layer in the same way as speaker- and addressee-oriented notions are; in fact, it is typically assumed to be more at home lower in the structure among the likes of topic and focus projections. Zhang (2017), for example, argues that the boundary between speech act-related projections and other functional projections is as relevant as the traditionally better established boundary between the C domain and the lower clausal domains. The speech act-related projections in Zhang's analysis refer to the topmost projections on Cinque's (1999) hierarchy, including Speech Act, Evaluative, Evidential, and Epistemic projections, while the lower domains host, among others, IP, FinP, FocusP, and TopP. It is well established that clause types vary as to how much structure they project. Zhang takes one relevant distinction to be between finite and non-finite clauses,

arguing that only the former project the highest, speech act-related layer. Exactly how much of the structure below the highest layer a non-finite clause projects varies cross-linguistically: for example, non-finite clauses can host focus in Hungarian (Szabolcsi, 2009 cited in *ibid*.:32) and Chinese, and topics in Italian (Rizzi, 1997 cited in *ibid*.:32) and Chinese (Zhang, 2016; Li, 2017 cited in *ibid*.:32).

I will approach the question of what can be projected where and how by analyzing the behaviour of discourse particles and the expression of contrast in embedded contexts. The full structure of a clause will be assumed to be available in root contexts, but embedded clauses differ in how much speech act-related structure they project. While Wiltschko and Heim (2016) note that clauses may vary in size, they leave very much open how the differences in size may vary across languages. Contrasting the behaviour of discourse particles and the expression of contrast in Finnish and Japanese will offer an empirical insight both into the behaviour of the phenomena under discussion as well as potential points of cross-linguistic variation between the two languages. This will be reflected in different possible ways of encoding the particles and contrastive elements: some of the elements will be shown to correspond to specific syntactic projections, while for others, the option is raised that their pragmatic contribution is the result of their position in the clause with respect to other elements, i.e. to follow from essentially relational rather than absolute considerations.

Section 4.2 first sets up the framework to be used here: I will briefly discuss Hooper and Thompson's (1973) typology of complement clauses and Haegeman and Endo's (forthcoming) approach to adverbial clauses, and then go on to consider the behaviour of the Finnish and Japanese discourse particles in the contexts identified in the two typologies. In section 4.3, the focus changes to contrast, introducing and defining the notion in the two languages and then turning to its appearance in the relevant embedded contexts. Section 4.4 is a short note on the phenomenon of topic particle stranding, providing additional independent evidence for the separateness of the Grounding Layer from CP. Section 4.5 summarizes the findings.

4.2 Particles under embedding

In order to analyze the behaviour of the discourse particles and contrast in embedded contexts, I will consider their acceptability in both complement clauses to factive and non-factive verbs as well as certain types of adverbial clauses. The testing framework adopted here builds on Hooper and Thompson's (1973) analysis of complement clauses and embedded root phenomena and Haegeman and Endo's (forthcoming) movement analysis of adverbial clauses.

4.2.1 Hooper and Thompson (1973): root phenomena or not?

Hooper and Thompson (1973) build their framework of different types of complement clauses on the observation that some embedded clauses are more 'root-like' than others, and, as such, also more independent of their matrix clause. Crucially, some embedded contexts allow so-called *embedded root phenomena*, while they are ruled out from others (see Heycock (2005) for an overview).

The differing behaviour of types of complement clauses with respect to embedded root phenomena is derived from the matrix verbs that select them: embedded root phenomena can occur in complement clauses that are asserted. The authors categorize predicates into five types based on whether their complements are asserted or presupposed. The first three classes contain non-factive predicates, and the last two factives.

Class A consists of predicates such as *say*, *report*, *be true*, and *be obvious*. All the verbs in this class are verbs of saying; both the verbs and adjectives may function parenthetically, in which case the embedded clause constitutes the main assertion of the sentence. However, the predicates in this class always make an independent assertion as well.

Class B contains predicates such as *suppose*, *expect*, *it seems*, and *it appears*. Similarly to class A, the complement is asserted; however, the predicates themselves in class B need not make an assertion.

In class C are predicates such as *be (un)likely*, *be (im)possible*, *doubt*, and *deny*. The complements of these predicates are neither asserted nor presupposed; for most speakers, embedded root phenomena are disallowed in these complements.

Class D consists of factive predicates, the complements of which are argued to be presupposed and hence not asserted. Examples of the relevant predicates here include *resent*, *regret*, *be odd*, and *be strange*.

Finally, class E predicates are semifactives, i.e. factives that lose their factivity in questions and conditionals. They have a reading on which the subordinate clause is asserted. Examples include *know* and *realize*.

Crucially to the discussion here, classes C and D are the two non-assertive classes, argued not to manifest root-like behaviour; predicates in classes A, B, and E, on the other hand, take assertive complements and therefore enable embedded root phenomena. Testing the acceptability of the discourse particles and contrast in these contexts will establish a rough distinction as to whether or not they show root-like behaviour.

4.2.2 Haegeman and Endo (forthcoming): towards finer distinctions based on adverbial clauses

While Hooper and Thompson's (1973) typology will indicate to what extent discourse particles and the expression of contrast can be considered to be typical root phenomena, considering their behaviour in different types of adverbial clauses – if they are permitted in any, that is – can serve to shed light on their more precise placement in the functional structure.

I will adopt Haegeman and Endo's (forthcoming) approach to adverbial clauses as the framework here, building on previous work by Haegeman (2006, 2010) and Endo (2007). The key distinction here is between peripheral, or discourse-related, and central, or event-related, adverbial clauses. To illustrate the distinction, consider English *while*. The conjunction can be used in a temporal sense, providing a temporal

specification of the state of affairs expressed in the matrix clause, or contrastively, introducing a proposition that provides the discourse context for the interpretation of the associated clause, equivalent to *whereas*. In (1), *while$_1$* is used in the temporal sense, introducing a central adverbial clause, while[45] *while$_2$* takes on the contrastive function:

(1) While$_2$ this ongoing lawsuit probably won't stop the use of lethal injection, it will certainly delay its use while$_1$ the Supreme Court decides what to do.
(from Haegeman and Endo, forthcoming:1)

Other conjunctions that can introduce both types of clauses include *because*, *since* (with both tempo-aspectual and rationale readings), and *if* (expressing either an event conditional or a conditional assertion, i.e. a privileged contextual assumption against which the proposition expressed in the associated clause is processed). Some conjunctions, such as *before* and *after* seem to be specialized to central adverbial clauses, while others, such as *whereas* and *although* introduce only peripheral ones.

Other than their semantics, the distinction between the two types of adverbial clauses has been motivated based on syntactic considerations – although, as will be seen below, this distinction will turn out to be more gradient than binary. This is reflected both in their external and internal syntax.

First, central, but not peripheral, adverbial clauses can be temporally subordinated, i.e. in the former the temporal interpretation depends on the matrix clause's temporal relations (Hornstein, 1993 cited in *ibid*.:4). Consider (2), repeated from (1):

(2) While$_2$ this ongoing lawsuit probably won't/ doesn't stop the use of lethal injection, it will certainly delay its use while$_1$ the Supreme Court decides/*will decide what to do.
(from *ibid*.:4)

[45] A naturally occurring instance of contrastive *while*...

Here *decides* in the central adverbial clause following temporal *while*$_1$ is assigned a future meaning which cannot be encoded explicitly by *will*, whereas in the peripheral *while*$_2$-clause, futurity has to be encoded overtly with *won't* as *doesn't* switches the interpretation to the present tense, i.e. it is independent of the matrix clause.

Matrix focal operators can scope over central but not peripheral adverbial clauses: for instance, the former, but not the latter, can be clefted. This is illustrated in the acceptability contrast in the examples in (3):

(3) a. It's while$_1$ Bill Clinton was still president that the accusations were made.

b. * It is while$_2$ Bill Clinton won the election in 1992 that Hillary Clinton was defeated in 2016.

(from *ibid*.:4)

In terms of their internal syntax, central adverbial clauses resist speaker-anchored modal expressions, and are not easily compatible with the four topmost expressions of modality in Cinque's (1999) functional hierarchy, i.e. speech act, evaluative, evidential, and epistemic expressions. This will become apparent in the discussion on Japanese below. (4) illustrates this with an English example, where (4a) expresses an event conditional on which the main assertion is dependent, i.e. a central *if*-clause, and (4b) is a conditional assertion with an 'if, as you say' reading, i.e. peripheral *if*-clause :

(4) a. * If they probably arrived on time, we will be saved.

b. If Le Pen will probably win, Jospin must be disappointed.

(from Nilsen 2004 cited in *ibid*.:5)

As tempting as it may be to rule out information structural phenomena from central adverbial clauses, this is too much of a generalization.[46] In English, for example, central adverbial clauses allow in situ focus (5), clefting (6), and heavy NP shift (7), while in French they are compatible with stylistic inversion (8):

(5) He was always there ready with advice but when I needed MONEY he was nowhere to be found.

(from *ibid*.:6)

(6) He was always there ready with advice but when it was MONEY that I needed he was not to be found.

(from *ibid*.:6)

(7) I have two types of mosquito lotion...But I found that if you put in your pockets [dryer sheets], ...it keeps them away.

(from Wallenberg 2009 cited in *ibid*.:6)

(8) Je voulais partir quand t_i sont arrivés les enfants$_i$.
I want-PST-1SG leave when be-PRS-3PL arrive-PTCP-PL the children
"I wanted to leave when the children arrived."

(from Lahousse, 2003b, cited in *ibid*.:6)

[46] This is the key problem with Haegeman's (2010) original analysis of the two types of adverbial clauses, where discourse-related projections are projected only in peripheral adverbial clauses and are truncated in central ones, as schematized in (i) (SD stands for speaker deixis):

(i) a. central adverbial clauses and clauses embedded under factive verbs:
Sub Fin

b. peripheral adverbial clauses:
Sub Top Focus SD Fin

c. root clauses
Top Focus SD Fin

Nor can central adverbial clauses be argued to lack a left periphery. French central adverbial clauses allow clitic left dislocation (CLLD), typically taken to utilize the left-peripheral space:

(9) Quand cette chanson je l'ai entendue, j'ai pensé à mon premier
when that song I it have-1SG heard-FEM, I have-1SG think-PTCP to my first
amour.
love
"When I heard that song, I thought of my first love."

(from *ibid*.7)

Furthermore, in English arguments cannot precede a subject in central adverbial clauses but adjuncts can. In French, in turn, when a PP is fronted in a central adverbial clause, it must be associated with an otherwise optional resumptive clitic:

(10) Quand à Fred, tu *(lui) casses les pieds, il te tourne le dos.
when to Fred, you (to-him) break the feet he to-you turns the back
"When you get on Fred's nerves, he walks away."

(from *ibid*.:7)

The data show that peripheral and central adverbial clauses cannot be distinguished solely based on whether or not they project left-peripheral structure and whether or not they allow the encoding of information structure. Rather, the data call for a more fine-grained analysis.

Haegeman and Endo account for the data by drawing parallels between central adverbial clauses and clauses with wh-movement, on the one hand, and by tapping into even finer distinctions based on Japanese, on the other. First, central adverbial clauses and clauses with wh-movement converge on the acceptability of CLLD, argument fronting, and-left peripheral adjuncts, as summarized in Table 4:

	CLLD	argument fronting	left-peripheral adjuncts
central adverbial clause	✓	✗	✓
embedded wh-question	✓	✗	✓
(long) wh-question	✓	✗	✓
wh-relative	✓	✗	✓
long wh-relative	✓	✗	✓

Table 4. The acceptability of CLLD, argument fronting and left-peripheral adjuncts in central adverbial clauses and wh-movement environments

The acceptability patterns in wh-clauses are standardly accounted for based on locality conditions on wh-movement: fronted arguments without resumption create islands for movement, while left-peripheral adjuncts and CLLD do not. Given the parallel patterns, Haegeman and Endo propose an analysis similar to this for central adverbial clauses. It has been independently argued that temporal adverbial clauses are derived by the movement of a TP-internal operator to the left periphery (for example, Geis, 1970; Reuland, 1979; Larson, 1985, 1987, 1990; Johnson, 1988; Declerck, 1997; Demirdache and Uribe-Etxebarria, 2004, 2012; Stephens, 2007; Zentz, 2011 all cited in *ibid*.:10), while some authors (Haegeman, 2010; Lycan, 2001; Bhatt and Pancheva, 2006; Arsenijevic, 2006, 2009 all cited in *ibid*.:10) adopt a movement analysis for conditional clauses. It follows that the left periphery remains available for constituents that are not blocked from moving by the left-peripheral operator independently of whether they occur in a central or peripheral adverbial clause.

Also peripheral adverbial clauses can be recast in terms of movement. Here, the moved operator is launched from a high position in the clause so that it does not interfere with any of the material in the lower left periphery. Another option the authors entertain is to take the clauses to project the full clausal structure without movement. However, considerations from Japanese support the movement analysis, and the importance of the launching site of the moved element in both central and peripheral adverbial clauses.

In Japanese, adverbial classes do not fall neatly into two categories with respect to the availability of certain sentence-final markers. The relevant markers are illustrated in (11):

(11) Narabe-rare-tei-na-i-yooda-ne.
arrange-PASS-PROG-NEG-PRS-S-MOOD-A-MOOD
"Things do not seem to have been arranged, do they?"
(from *ibid*.: 14)

Here *-rare-* represents passive voice, *-tei-* progressive aspect, *-na-* negative polarity, and *-i-* present tense. The authors take *-yooda-* to be a marker of what they call S-mood, or speaker-related mood, and *ne* a marker of A-mood, or addressee-related mood. Note, though, that while the description of *ne* as addressee-oriented tallies with my analysis in the previous chapter, A-mood and S-mood cannot be equated with the notion of A and S orientation used here. First, *-yooda-* is standardly taken to be an evidential marker, typically indicating that the proposition is made based on first-hand sensory information (Matsubara, 2017). Second, the authors take A-mood to be the locus for encoding the speech act, making it a broader notion than A orientation and the corresponding GroundA in the USH framework. Crucially, in the approach to speech acts adopted here, both speaker- and addressee-related elements are hosted in the speech act-related layer, i.e. the Grounding Layer; this means that the authors' A-mood corresponds roughly to the Grounding Layer, with S-mood being a lower evidential projection.

Following Minami (1974 cited in *ibid*.:15):) and Noda (1989, 2001 cited in *ibid*.:15), Haegeman and Endo note that the markers differ with respect to their availability in different types of adverbial clauses, forming a gradient system. This is summarized in Table 5:

	Voice	Aspect	Pol	T	S-Mood	A-Mood
Group A *nagara* 'while'	✓	✗	✗	✗	✗	✗
Group B *zuni* *'without'*	✓	✓	✗	✗	✗	✗
Group C *ba* 'if'	✓	✓	✓	✗	✗	✗
Group D *toki* 'when'	✓	✓	✓	✓/✗	✗	✗
Group E *node* 'because	✓	✓	✓	✓	✗	✗
Group F *ga* 'though'	✓	✓	✓	✓	✓	✗

Table 5. The acceptability of sentence-final markers in embedded contexts in Japanese

To account for this pattern, Endo (2011b, 2014 cited in *ibid*.:16) proposes that the lowest missing functional head in the adverbial clause corresponds to the head that undergoes movement to the left periphery. For instance, in adverbial clauses headed by *nagara* 'while', the lowest head that is missing is the Aspect head. The head that is moved to the left periphery to derive the clause, then, is an aspectual head – this tallies with the semantics of *nagara*. In a *node* 'because' clause, on the other hand, the lowest missing head is S-mood, and the moved head corresponds to this. Because of the head movement, all higher functional heads become unavailable. This is illustrated with the contrast between *nagara* (12a) and *node* in (12b):

(12) a. Neko wa atama o nade-rare-(*tei-) nagara zitto si-tei-ru.
cat TOP head ACC pat-PASS -(*PROG) while still stay-PROG-PRS
"While its head is patted, the cat stays still."

b. Neko wa atama o nade-rare-tei-na-i-(*yooda) node zitto
cat TOP head ACC pat-PASS-PROG-NEG-PRS-(*S-MOOD) because still
si-tei-ru.
stay-PROG-PRS
"Because its head is not patted, the cat stays still."

(from *ibid*.:15)

In (12a), voice marking is available – here in the form of passive marker *-rare-* – but the aspectual marker *-tei-* is not. On the other hand, in (12b), markings for voice (passive *-rare-*), aspect (*-tei-*), negation (*-na-*), and tense (*-i-*) are available, whereas the S-mood marker *-yooda-* cannot occur in the adverbial clause.

Crucial here is that the classification of clauses in Table 5 cuts across the central versus peripheral binary. As such, each clause type should be approached individually, and not relying on its classification as either central or peripheral; rather the binary typology is replaced by a more fine-grained one, even if Haegeman and Endo retain the labels 'central' and 'peripheral' to refer descriptively to two the types adverbial clauses defined at the beginning of the discussion.

Building on this analysis of the internal structure of adverbial clauses, Haegeman and Endo argue further that the internal syntax of an adverbial clause is reflected in its external syntax as well. Essentially, the more structure there is available within the adverbial clause, the higher it is merged in the matrix clause; it follows that central adverbial clauses are merged lower than peripheral ones. As an example, peripheral adverbial clauses introduced by *ga* 'although' only impose restrictions at the level encoding A-mood, as appears from Table 5. When modified by a *ga*-clause, the matrix clause must be associated with neutral A-mood and is incompatible with overt A-mood markers such as question particle *ka* or confirmation particle *ne*:

(13) *Kankyoo wa waruku-na-i-yooda ga, sono basyo wa huben desu ka.
environment TOP bad-NEG-PRS-A-MOOD although that place TOP inconvenient COP Q
Intended reading: "Although the place might not be bad, is it inconveniently located?"

(from *ibid*.:21)

Hence, there is a matching relation between the internal syntax of the adverbial clause, i.e. the launch site of the head movement that derives the clause, and its external syntax, i.e. the point in the functional sequence of the matrix clause where it merges.

In the following discussion, I will analyze the behaviour of the Finnish and Japanese particles under investigation here and the expression of contrast in *because*-, *when*-, and *if*-clauses: the first of these is expected to allow more structure than the latter two. As such, the framework based on both Hooper and Thompson (1973) and Haegeman and Endo (forthcoming) will indicate whether the relevant phenomena can be considered as restricted to root-like contexts as well as shed light on their more specific placement in the clausal structure, if they are allowed in adverbial clauses.

4.2.3 Finnish particles under embedding

The particles *-hAn* and *-pA* behave in the same way with respect to their acceptability under embedding. They can occur in complements to Class A predicates:

(14) a. Huhtasaari sanoi, että hän-**hän** lähtee Perussuomalaisten
Huhtasaari said that s/he-*hAn* goes True Finns-GEN
presidenttiehdokkaaksi.
presidential candidate-TRANSL

b. Huhtasaari sanoi, että hän-**pä** lähtee Perussuomalaisten
Huhtasaari said that s/he-*pA* goes True Finns-GEN
presidenttiehdokkaaksi.
presidential candidate-TRANSL
"Huhtasaari said that she would run as the True Finns' presidential candidate."

However, they are not acceptable in the complements of Class B (15), C (16), D (17) or E (18) predicates:

(15) a. * Huhtasaari uskoo, että hän-**hän** lähtee Perussuomalaisten
Huhtasaari believes that s/he-*hAn* goes True Finns-GEN presidential
presidenttiehdokkaaksi.
presidential candidate-TRANSL

b. * Huhtasaari uskoo, että hän-**pä** lähtee Perussuomalaisten
Huhtasaari believes that s/he-*pA* goes True Finns-GEN
presidenttiehdokkaaksi.
presidential candidate-TRANSL
"Huhtasaari believes that she will run as the True Finns' presidential candidate."

(16) a. * On mahdollista, että Huhtasaaresta-**han** tulee presidentti.
is possible-PART that Huhtasaari-ELA-*hAn* comes presidentti

b. * On mahdollista, että Huhtasaaresta-**pa** tulee presidentti.
is possible-PART that Huhtasaari-ELA-*pA* comes presidentti
"It is possible that Huhtasaari becomes president."

(17) a. * Huhtasaarta kaduttaa, että hän-**hän** ei ottanut maahanmuuton
Huhtasaari-PART regret that s/he-*hAn* not take immigration-GEN
faktoista selvää ennen vaaliväittelyä.
facts-ELA clear-PART before election debate-PART

b. * Huhtasaarta kaduttaa, että hän-**pä** ei ottanut maahanmuuton
Huhtasaari-PART regret that s/he-*pA* not take immigration-GEN
faktoista selvää ennen vaaliväittelyä.
facts-ELA clear-PART before election debate-PART
"Huhtasaari regrets that she didn't look into the facts about immigration before the election debate."

(18) a. * Huhtasaari sai tietää, että maahanmuutto-**han** ei ole yksinkertainen
Huhtasaari get know that immigration-*hAn* not be simple
asia.
thing

b. * Huhtasaari sai tietää, että maahanmuutto-**pa** ei ole yksinkertainen asia.
Huhtasaari get know that immigration-*pA* not be simple thing
"Huhtasaari learnt that immigration isn't a simple thing."

Turning to adverbial clauses, the particles are unavailable in *because*-, *if*-, and *although*-clauses as is shown in (19), (20) and (21), respectively:

(19) a. * Moni aikoo äänestää Huhtasaarta, koska hänen-**hän** koetaan tuovan
many plans vote Huhtasaari-PART because s/he-ACC-*hAn* feel-PASS bring
oikea muutos nykypolitiikkaan.
right change today's politics-ILL

b. * Moni aikoo äänestää Huhtasaarta, koska hänen-**pä** koetaan tuovan
many plans vote Huhtasaari-PART because s/he-ACC-*pA* feel-PASS bring
oikea muutos nykypolitiikkaan."
right change today's politics-ILL
"Many people are planning on voting for Huhtasaari because she is felt to bring the right kind of change into today's politics."

(20) a. * Ihmisoikeusaktivisit suuttuvat varmasti Huhtasaarelle, jos hän-**hän**
human rights acitivists get angry certainly Huhtasaari-ALL if she-*hAn*
alkaa kampanjoida entistäkin agressiivisemmin.
starts campaign before-even aggressively-COMPARAT

b. * Ihmisoikeusaktivisit suuttuvat varmasti Huhtasaarelle, jos hän-**pä**
human rights acitivists get angry certainly Huhtasaari-ALL if she-*pa*
alkaa kampanjoida entistäkin agressiivisemmin.
starts campaign before-even aggressively-COMPARAT
"Human rights activists will certainly get angry at Huhtasaari if she starts campaigning even more aggressively than before."

(21) a. * Vaikka vanhan polven edustajat-**han** pitävät eduskunnassa
although old-GEN generation-GEN MPs-*hAn* hold parliament-INE
edelleen valtaa, yhä useammat nuoret ovat lähdössä
still power-PART more and more young people are going
politiikkaan mukaan.
politics-ILL along
"Although old generation MPs still hold the power in parliament, more and more young people are going into politics."

b. * Vaikka Huhtasaari-**pa** kampanjoi paljon pääkaupunkiseudulla, hänen
although Huhtasaari-*pA* campaign a lot capital area-ADE s/he-GEN
kannatuksensa siellä on vielä alhainen.
support-3SG.POSS there is still low
"Although Huhtasaari campaigns a lot in the capital region, her support there is still low."

What emerges is a pattern where the discourse particles can only be embedded under Class A predicates.

4.2.4 Japanese discourse particles under embedding

Turning to Japanese, I will focus on the particles *wa*, *yo*, *na* and *ne*, as these are the best studied ones in the literature, and, more importantly, they also represent both monopolistic (*wa*, *yo*) and incorporative (*na*, *ne*) markers in Ogi's (2017) classification, as discussed in the previous chapter.

First, all the particles can occur in the complement of the Class A predicates:

(22) Yuki wa Tookyoo orinpikku de nihonjin rannaa ga marason ni katsu
Yuki TOP Tokyo Olympics at Japanese runner NOM marathon at win
yo/**wa**/**ne**/**na** to itta.
yo/*wa*/*ne*/*na* that said
"Yuki said that Japanese runners will win the marathon at the Tokyo Olympics."

However, the particles cannot occur in complements of Class B (23), C (24), D (25), or E (26) predicates:

(23) Yuki wa Tookyoo orinpikku de nihonjin rannaa ga marason ni katsu
Yuki TOP Tokyo Olympics at Japanese runner NOM marathon at win
yo**/wa**/***ne**/***na** to shinjiteiru.
yo/ *wa*/ *ne*/ *na* that believes
"Yuki believes that Japanese runners will win the marathon at the Tokyo Olympics."

(24) Tookyoo orinpikku de wa nihonjin rannaa ga marason ni katsu
Tokyo Olympics at TOP Japanese runner NOM marathon at win
yo**/wa**/***ne**/***na** kanoosei ga arimasu.
yo/ *wa*/ *ne*/ *na* possibility NOM is
"It is possible that Japanese runners will win the marathon at the Tokyo Olympics."

(25) Yuki wa Tookyoo orinpikku no tiketto o te-ni hairenakatta koto o
Yuki TOP Tokyo Olympics GEN ticket ACC got-NEG thing ACC
yo**/wa**/***ne**/***na** kookaishimasu.
yo/*wa*/ *ne*/*na* regret
"Yuki regrets that she did not get a ticket for the Tokyo Olympics."[47]

[47] Here, *kookai suru* 'regret' takes a nominalized complement, as is apparent from the presence of the nominalizer *koto*. This alone can be taken to rule out the discourse particles, as they follow the dictionary form of the verb and not the nominalized form. Paraphrasing the sentence with a non-nominalized complement results in degraded acceptability:

(i) ?? Yuki wa Tokyo orinpikku no tiketto o te-ni hairenakatta to koukaisiteiru
Yuki TOP Tokyo Olympics GEN ticket ACC get-NEG-PST that regret
"Yuki regrets that she did not get tickets for the Tokyo Olympics."

Inserting discourse particles does not change the acceptability:

(26) Yuki wa Tokyo orinpikku no tiketto ga kanbaishita ***yo**/***wa**/***ne**/***na** to
Yuki TOP Tokyo Olympics GEN ticket NOM sold.out *yo*/ *wa*/ *ne*/ *na* that
shirita.
found out
"Yuki found out that tickets for the Tokyo Olympics were sold out."[48]

Turning to adverbial clauses, the particles cannot occur in *because*-, *although,* or *if*-clauses, as illustrated in (27), (28), and (29), respectively:

(27) Tookyoo orinpikku no tiketto ga kanbaishita ***yo**/***wa**/***ne**/***na** node, Yuki
Tokyo Olympics GEN ticket NOM sold.out *yo*/ *wa*/ *ne*/ *na* because Yuki
ga meiwakuwokakeru.
NOM is.annoyed
"Yuki is annoyed because tickets for the Tokyo Olympics sold out."

(28) Tiketto wa urikireta ***yo**/***wa**/***ne**/***na** ga, Yuki wa Tookyoo orinpikku ni
ticket TOP sold.out *yo*/ *wa*/ *ne*/ *na* although Yuki TOP Tokyo Olympics to
ikitai.
go.want
"Yuki wants to go to the Tokyo Olympics although the tickets sold out."

(ii) ?? Yuki wa Tokyo orinpikku no tiketto o te-ni hairenakatta *yo/*wa/*ne/*na to
Yuki TOP Tokyo Olympics GEN ticket ACC get-NEG-PAST *yo*/ *wa*/ *ne*/ *na* that
kookaishiteiru.
regret
"Yuki regrets that she did not get tickets for the Tokyo Olympics."
(examples from Gen Fujita, p.c.)

To make the claim that discourse particles cannot occur in the complement of Class D predicates with certainty, inserting the particles into (ii) should result in greater unacceptability. However, given that there is no evidence for wholly accepted Class D complements with the discourse particles, I conclude that they cannot occur here, in the absence of evidence to the contrary.

[48] Example from Gen Fujita (p.c.)

(29) Nihonjin rannaa ga Tookyoo orinpikku de marason ni katanakere
Japanese runner NOM Tokyo Olympics at marathon at win-NEG
yo**/wa**/***ne**/***na** ba, daremo ga shitsuboosuru-darou.
yo/ *wa*/ *ne*/ *na* if everyone NOM disappointed.be-will
"If Japanese runners do not win the marathon at the Tokyo Olympics, everyone will be disappointed."

The Japanese particles mirror the behaviour of the Finnish ones in being acceptable only in complements of Class A predicates, i.e. those that introduce reported speech. This differs crucially from the acceptability patterns of contrastive elements in embedded contexts, as will appear below.

4.3 A contrastive comparison

To establish that there really is a significant boundary between the highest clausal domains, i.e. Wiltschko and Heim's (2016) Grounding Layer and CP, it is necessary to consider also the behaviour of phenomena typically associated with the lower one of these. The notion of contrast is one such phenomenon.

I adopt the widely used definition of contrast based on alternatives: it implies the rejection of at least one alternative in the set of relevant alternatives generated by the contrastive item. More specifically, I follow Vermeulen (2013) in assuming that [contrast] can combine with focus or topic. Contrastive focus appears in correction and disjunctive question contexts, among others. Contrastive topics, on the other hand, are evoked in conjunctive questions. These contexts will be illustrated throughout the following discussion.

Section 4.3.1 is an introduction to contrast in Finnish, and section 4.3.2 considers its behaviour under embedding. In section 4.3.3, I discuss contrastive and thematic *wa*-marked phrases in Japanese, before considering their behaviour in embedded contexts in section 4.3.4.

4.3.1 Contrast in Finnish

It is well established that contrast plays a central role in discourse-related word order variation in Finnish; much less established, however, is its exact syntactic analysis (see, for example, Kaiser, 2006; Hollingsworth, 2014). The following is a descriptive outline of the properties of Finnish contrast, with some desiderata for its syntactic encoding.

Contrastive topics and foci are often argued to target the same position in the left periphery (Vilkuna, 1995); see Figure 1 in section 3.3.1 in the previous chapter. On the standard account, this position is taken to be CP, shared with elements carrying discourse particles. This is illustrated for a contrastive focus in (30) in a correction context, and for a contrastive topic in (31) in a context with a conjunctive question:[49]

(30) a. Putin vapautti MIKHAIL KOSENKON.
Putin freed Mikhail Kosenko-ACC
"Putin freed Mikhail Kosenko."

b. Ei, <u>PUSSY RIOTIN</u> Putin vapautti, ei Mikhail Kosenkoa.
no Pussy Riot-ACC Putin freed not Mikhail Kosenko-PART
"No, it was Pussy Riot that Putin freed (, not Mikhail Kosenko)."

(31) Q: Mitä kauheaa Sagan kollegat löysivät?
what awful-PART Saga-GEN colleagues found?
"What awful thing did Saga's colleagues find?"

a. <u>Sagan nuorin kollega</u> löysi RUUMIIN.
Saga-GEN youngest colleague found body-ACC
"Saga's youngest colleague found a body."

[49] The following expository devices will be adopted for marking the discourse-related notions relevant to the discussion:
FOCUS
<u>CONTRASTIVE FOCUS</u>
<u>contrastive topic</u>.

Movement to sentence-initial position is optional, however, and contrastive interpretation can occur with the relevant phrase remaining in situ as well, marked by intonation. In the latter case, though, the contrastive interpretation – and intonation – is not obligatory. Consider (32):

(32) a. Putin vapautti MIKHAIL KOSENKON.
Putin freed Mikhail Kosenko-ACC
"Putin freed Mikhail Kosenko."

b. Ei, PUSSY RIOTIN Putin vapautti, ei Mikhail Kosenkoa.
no Pussy Riot-ACC Putin freed not Mikhail Kosenko-PART
"No, it was Pussy Riot that Putin freed (, not Mikhail Kosenko)."

c. Ei, Putin vapautti PUSSY RIOTIN, ei Mikhail Kosenkoa.
no Putin freed Pussy Riot-ACC not Mikhail Kosenko-PART
"No, it was Pussy Riot that Putin freed (, not Mikhail Kosenko)."

Here both (32b) and (32c) are felicitous continuations to (32a): as both involve a correction context, this implies contrastive interpretation of the focus. However, on its own only (32b) is unambiguously contrastive, while the contrastive interpretation in (32c) requires an explicit statement of contrast, either in the form of a preceding utterance or as an additional *not*-phrase, as above.

The same can be shown with respect to contrastive topics:

(33) Q: Kuka torui Sagan kollegoita?
who told off Saga-GEN colleagues-PART
"Who told off Saga's colleagues?"

a. Torui-ko-han Sagan nuorinta kollegaa MARTIN?
told off-Q-*hAn* Saga-GEN youngest colleague-PART Martin
"I wonder if Martin told off Saga's youngest colleague?"

The respondent takes (33Q) as a conjunctive question, "Who told off Saga's youngest colleague and the rest?" and answers only the first conjunct involving Saga's youngest colleague, giving rise to a contrastive topic interpretation. However, the contrastive topic is not in sentence-initial position, and taken out of context, (33a) loses its contrastive interpretation. So, while contrast is possible in situ, unambiguous contrast without contextual clues requires the contrastive constituent to move to sentence-initial position.[50] This is in line with the idea that the expression of contrast is essentially relational in Finnish: what matters is not the absolute position of the contrastive element, i.e. whether or not there is a specific contrastive projection, ContrastP, for example, but the fact that an element has come to occupy a different position in relation to other elements in the sentence. As such, it is the relative position of a sentence-initial contrastive element that leads to its obligatory contrastive interpretation, as opposed to a contrastive element in situ, where its position relative to other constituents is no different from a non-contrastive element.

A relational account works also with the observation that although contrastive elements can occur in more than one position, they are subject to certain ordering restrictions. First, in sentences with multiple topics, the first one is contrastive, and the second continuous[51] (Vilkuna, 1995).

Second, Neeleman and van de Koot (2010) show, based on evidence from Dutch, that while in situ any ordering of a contrastive topic and contrastive focus is acceptable, a contrastive focus may not precede a contrastive topic if it undergoes movement. A contrastive topic, on the other hand, may undergo movement to precede a contrastive focus. This is summarized in (34):

[50] Intonation lessens the ambiguity of in situ contrast. However, whether intonation alone can eliminate absolutely all ambiguity in these contexts is not clear. See Arnhold and Féry (2013) on the marking of focus in Finnish, showing that prosodic marking is more pervasive when syntactic means, i.e. variations in word order, are not available to mark contrast.

[51] A continuous topic is "a discourse referent that is the topic of a longer stretch of discourse" (Vilkuna, 1995:251); see also Frascarelli and Hinterhölzl's (2007) Familiar Topic, which, in Italian, occupies the same position relative to a contrastive topic as its Finnish counterpart.

(34) a. topic […FOCUS…]

b. *FOCUS […topic…].

This falls out from the natural assumption that utterances are larger than propositions, and hence topics as utterance level notions must be located externally to foci, the latter operating at the level of propositions. The restriction holds also in Finnish, so that a contrastive focus cannot precede a contrastive topic, as shown in (35):

(35) Q: Mitä kauheaa Sagan kollegat löysivät?
what awful-PART Saga-GEN colleagues found?
"What awful thing did Saga's colleagues find?"

a. ?? RUUMIIN Sagan nuorin kollega löysi.
body-ACC Saga-GEN youngest colleague found
"Saga's youngest colleague found a body."

b. Sagan nuorin kollega löysi RUUMIIN (, mutta ei asetta).
Saga-GEN youngest colleague found body-ACC but not gun-PART
"Saga's youngest colleague found a body (but not a gun)."

Here the answer in (35a) with a contrastive focus preceding the contrastive topic is strange, if not ungrammatical, while the answer in (35b), with the opposite order of the relevant constituents, is perfectly well-formed.

Finnish contrastive foci and topics would hence seem to behave in much the same way, targeting a sentence-initial position when they undergo optional movement. The availability of sentence-initial contrast in embedded contexts has not been studied systematically in previous literature. The following aims to shed some light on this.

4.3.2 Embedding contrast in Finnish

Compared to the discourse particles discussed above in section 4.2.3, fronted contrast is much more available in the testing contexts.

It is possible to front a contrastive element embedded under a Group A predicate:[52]

(36) Veeti and Lara are browsing through a Crazy Days[53] catalogue. They have both spoken earlier with Jonna about her wishes.

Veeti: Jonna haluaa kuulemma ton mustan Guccin laukun.
Jonna wants apparently that-ACC black-ACC Gucci-GEN bag-ACC
"Apparently Jonna wants that black Gucci bag."

Lara: Ei-hän, se nimenomaan sanoi, että TON PUNASEN se haluaa.
no-*hAn* s/he precisely said that that-ACC red-ACC s/he wants
"No, she precisely said that she wants the red one."

Contrastive fronting under Group B predicates is also possible:

(37) Veeti and Lara are talking about the day's news.

Veeti: Luin kummallisen jutun Huhtasaaresta. Se näköjään luulee, että
read-1SG strange-ACC thing-ACC Huhtasaari-ELA S/he apparently thinks that
meidän täytyy edelleen pelätä sikainfluenssaa.
we-GEN have-to still fear swine flu-PART
"I read a strange story about Huhtarsaari. Apparently she thinks that we still have to be afraid of swine flu."

Lara: Ei-päs! Se luulee, että EBOLAA meidän täytyy varoa.
no-*pA-s* s/he thinks that ebola-PART we-GEN have-to be-careful-of
"No, she thinks we have to be careful of ebola."

With Groups C predicates, native speaker judgements diverge, with some speakers accepting and others rejecting contrastive movement in situations such as (38):

[52] The examples in this section are given in more colloquial Finnish than the previous ones, given that a correction context is easiest to create in natural conversation contexts.

[53] A twice-yearly five-day sale at Stockmann, which used to be the main up-market department store in Finland; customers need to fight over the more popular sale items, as each day brings in a different set of offers.

(38) Veeti and Lara are looking at bags at Crazy Days. They have earlier both spoken with Jonna about their shopping plans.

Veeti: Hei, tossa on noita Guccin laukkuja! Kuulin, että Jonna haluaa
hey there is those-PART Gucci-GEN bags-PART heard-1SG that Jonna wants
ton mustan.
that-ACC black-ACC
"Hey, there they have the Gucci bags! I heard that Jonna wants the black one."

Lara: Ei-hän halua. Mutta on mahdollista, että TON PUNASEN se hankkii.
no-*hAn* want but is possible that that-ACC red-ACC s/he gets
"No she doesn't, but it's possible that she'll get the red one."

The divergence in the responses is in line with Hooper and Thompson's observations, who also note that while most speakers do not allow root transformations in complements of Class C predicates, some do.

Contrastive movement under Class D predicates is rejected:

(39) Veeti and Lara stop to have a chat in the street. They've both heard about an argument that happened at a party the previous night, during which their friend Jonna had angrily broken stuff belonging to the host of the party, Kiia.

Veeti: Juttelin just Jonnan kanssa eilisestä. Sitä kaduttaa kovasti,
chatted-1SG just Jonna-GEN with yesterday-ELA s/he-PART regret very much
että se hajotti Kiian uudet kengät.
that s/he broke Kiia-GEN new-ACC shoes-ACC
"I've just chatted with Jonna about last night. She very much regrets that she broke Kiia's new shoes."

Lara: * Oikeesti? Mulle se sanoi, että sitä kaduttaa, että SEN LAUKUN
really I-ALL s/he said that s/he-PART regret that that-ACC bag-ACC
se hajotti. Ne kengät oli kai vaan vahingossa jäänyt ulos sateeseen
s/he broke those shoes was I.guess just accidentally left outside rain-ILL
ja mennyt siinä sitten pilalle.
and gone there then spoiled-ALL
"Really? To me she said she regretted that she broke the bag. The shoes, I think, had just been left outside in the rain by accident and got spoiled that way."

This questions the conclusion reached by Kaiser (2006), claiming that clause-initial contrast is possible in both factive and non-factive contexts. The predicate the author uses to diagnose factive contexts is the semi-factive, Group E *tietää* 'know':

(40) ? Pekka tietää, että TUON HEVOSEN Jussi osti (eikä tätä toista).
Pekka knows that that-ACC horse-ACC Jussi bought (and-not this-PART other-PART)
"Pekka knows that Jussi bought that horse (and not this one)."
(from *ibid*.:344)

Kaiser marks the sentences as slightly deviant ('?') but argues that this is related to general discourse preferences. This arises from the observation that embedded clauses tend to be all old information. When a non-subject phrase occupies the clause-initial position, spec,FP, i.e. the topic and subject projection, has to be filled by the subject. While non-subject constituents in spec,FP are topics and hence old information, the subject in this position can be new information as well. In a subordinate context, this can result in a slightly pragmatically deviant interpretation. That the issue is with discourse preferences rather than syntactic restrictions is supported by the fact that Kaiser marks contrast in the complement of non-factive predicates as slightly deviant as well. This observation may well be valid, but based on the data here, it does not apply to the class of factive predicates as a whole, contra Kaiser.

With Group E predicates, the judgements diverge again:

(41) Veeti and Lara are looking at designer bags at Crazy Days, and are wondering what to give Jonna as a birthday present.

Veeti: Jonna kai kovasti toivoo tota mustaa laukkua lahjaksi.
Jonna I.hear very much wishes that-PART black-PART bag-PART present-TRANSL
"I hear Jonna really wishes for that black bag."

Lara: No niin mä-kin luulin! Mutta mä sain tietää eilen, että TON
well so I-*kin* thought but I got know yesterday that that-PART
PUNASEN se haluaa.
red-PART s/he wants
"Well that's what I thought, too! But I learned yesterday that it's the red one she wants."

Here, root transformations are expected to be allowed according to Hooper and Thompson's framework. Overall, the above discussion shows that contrastive movement is allowed in the assertive complements of predicates of Class A and Class B, while it is excluded from non-assertive complements of Class D predicates; judgements are variable with respect to Class C predicates, as expected, as well as Class E ones. This tallies with Hooper and Thompson's framework, apart from the variability in judgements with Class E predicates; what is crucial, though, is that contrastive movement is not clearly excluded in these contexts, as it is in Class D complements.

As for adverbial clauses, contrastive movement is possible under *because*-clauses:

(42) Veeti and Lara are shopping for a birthday present for Jonna.

Veeti: Jonna vois tykätä tosta mustasta Guccin laukusta. Hankitaanko
Jonna could like that-ELA black-ELA Gucci-GEN bag-ELA get-PASS-*kO*
se?
it
"Jonna might like that black Gucci bag. Shall we get it?"

Lara: No ei hankita, koska TOTA PUNASTA se sanoi toivovansa.
well no get because that-ELA red-ELA s/he said wish
"Well, no we won't, because she said it's that red one she's wishing for."

It cannot occur under *if*-clauses:

(43) Veeti and Lara are shopping for a birthday present for Jonna. At Stockmann's, they notice a big selection of T-shirts from Gucci's new collection in different colours.

Veeti: Nää paidat on kyllä tosi hienoja, Jonna tykkää näistä varmasti!
these shirts is yes very nice-PART Jonna likes these-ELA definitely
Otetaanko tää tummansininen?
take-PASS-*kO* this-ACC dark blue
"These shirts really are nice. Jonna will definitely like them! Shall we get this dark blue one?"

Lara: * En-pä tiiä… Musta on parempi, jos TOI PUNANEN me
not-1SG-*pA* know I-ELA is better if that red we
hankitaan.
get
"I don't know… I think it's better if we get the red one."

It is accepted in *although*-clauses:

(44) Veeti and Lara are shopping for a birthday present for Jonna. They have found T-shirts from Gucci's new collection in many different colours and are trying to decide, which one of them to buy for Jonna.

Veeti: Tää tummansininen on aika paljon halvempi kuin noi muut…
this dark blue is quite a lot cheaper than those others
Otetaanko tää?
take-*kO* this
"This dark blue one is quite a bit cheaper than the rest… Shall we take this one?"

Lara: Otetaan vaan, vaikka TOTA PUNASTA se kyllä sanoi
take why.not although that-PART red-PART s/he yes said
toivovansa.
wish
"Why not, although she did say it is the red one she's wishing for."

This pattern of acceptability in adverbial clauses mirrors Haegeman and Endo's (forthcoming) framework, in that *although*- and *because*-clauses are taken to be bigger and to allow more left-peripheral phenomena than *if*-clauses. Hence, both the data from complement and adverbial clauses are consistent with contrastive movement being an embedded root phenomenon.

4.3.3 Contrast in Japanese

Just as in Finnish, the notion of contrast plays an integral role in Japanese syntax, interacting with the right periphery. Also very much like Finnish, the case of contrast in Japanese is far from resolved: there is no consensus on its position, marking or even exact function. The literature is rife with different views as to how thematic topics,[54] contrastive topics, and contrastive foci relate to each other and the marker *wa*. The following is an extended exposition of the terminology and theoretical assumptions adopted here.

Kuno (1973) divides the uses of *wa* into marking thematic topics, on the one hand, and contrastive topics, on the other. The first marks what the sentence is about:

[54] 'Thematic topic' is the term used by many of the early generative Japanese syntacticians, including Kuno (1973). It is defined as what the sentence is about, and corresponds roughly to, for example, Frascarelli and Hinterhölzl's (2007) Aboutness Topic.

(45) John wa hon o yonde iru.
John TOP book ACC reading is
"John is reading a book."

(from Kuroda, 1970:81)

Kuroda (1970) discusses the use of thematic, or in his terminology subjective, *wa* specifically in relation to the subject. The thematic role of *wa* is illustrated clearly with respect to the contrast between (45) and (46), where the latter lacks a thematic *wa*-phrase and is devoid of subject-predicate structure, as in (46):

(46) John ga hon o yonde iru
John NOM book ACC reading is
"John is reading a book."

(from *ibid*.:81)

The example reads as a statement referring to a state of affairs directly without making any of its constituent entities an underlying carrier, or subject, of a certain property, or predicate.

Only objects and concepts mentioned and recorded in the registry of the present discourse can become the topic of a sentence (Kuno, 1973). In the permanent registry of a given discourse are nouns with unique reference in the universe of discourse, generic noun phrases, as well as objects with some specific reference after they have been mentioned for the first time. Whether a specific noun phrase can become a topic is determined by its anaphoricity, i.e. whether it has an antecedent in the temporary or permanent registry.

The other use of *wa* in Kuno's typology is to mark contrast:

(47) Ame wa hutte imasu ga…
rain TOP falling is but
"It is raining, but…"

(from Kuno, 1973:38)

In line with the general definition of contrast in the introduction, when contrastiveness is associated with topicality in Japanese, it brings about a sense of incompleteness, non-finality, or uncertainty, implying the presence of alternatives in the context (Tomioka, 2009). If the contrastive topic is replaced by any of those entities, the sentence becomes false. This is illustrated in (48):

(48) Erika wa mame o tabeta (kedo).
Erika TOP beans ACC ate but
"Erika ate beans (but…)"

(from *ibid*.:3)

Here the sense of incompleteness or uncertainty relates to the speaker's knowledge: if the utterance is used as a partial answer to 'What did the students eat?', it implies that the speaker only knows what Erika – the contrastive topic – but not the other students, ate.

Contrastive topics can appear in different speech act contexts, including interrogative, imperative, exhortative and performative contexts (Tomioka, 2009):

(49) …Zyaa Erika wa doko e itta no?
then Erika TOP where to went Q
"Well then, where did Erika go?"

(50) Eego wa tyanto yatte-ok-e.
English TOP without.fail do-prepare-IMP
"At least, prepare yourself for English."

(51) Kyooto ni wa iko-o.
Kyoto to TOP go-EXH
"At least, let's go to Kyoto."

(52) Sutoraiki no tame, kyoo wa yasumi to suru.
labour strike GEN due today TOP off day COMP do
"Due to the labour strike, we make it that there be no work today."
(from *ibid*.:7)

However, the theoretical repercussions of this descriptive distinction are very much subject to debate, and there are contrasting interpretations of what counts as a thematic topic, contrastive topic, or contrastive focus in the data; this will be reflected in the data, with non-thematic *wa*-phrases analyzed as both contrastive topics and foci depending on the context. This tallies with the empirical enquiry here, though, as the object of study is the notion of contrast, rather than differences among its sub-types. In the following, I will first consider the location of the two types of *wa*-phrases on the clausal skeleton, and then turn to a discussion of how their meanings might be related to each other. I will then consider how the emerging picture can be refined by incorporating the notion of contrastive focus into it.

4.3.3.1 Where is the contrast?

A standard assumption in much of the literature is that thematic topics occur typically in a sentence-initial position, while contrastive topics may either stay in situ in a sentence-internal position or move to a sentence-initial position. Kuroda (1970), for instance, assumes that the potential ambiguity of a clause-initial *wa*-phrase between thematic and contrastive interpretation can usually be resolved by the fact that it is the subject or subjects (here, themes) of the sentence that typically occupy the sentence-initial position or the first of several such positions in a sentence.[55]

[55] It should be noted that *wa*-marking is not necessary for contrast. Contrastive focus can also appear without *wa*-marking, as is apparent from (i) (the example is discussed in more detail in section 4.3.3.3 below), where the contrastively focused phrase *Sue o* carries the accusative marker rather than *wa*:

(i) a. Ie, Bill$_j$ wa [$_{CP}$ Mary ga sukunakutomo 3-NIN NI WA SUE O kare$_j$ no mise de
no Bill *wa* Mary NOM at least 3-CLF to *wa* Sue ACC he GEN shop at
syookaisita to] omotteiru.
introduced COMP thinking
"Bill thinks that Mary introduced Sue to at least three people in his shop."

Going beyond their differences on the surface, Kishimoto (2009) argues that the two types of topics are in fact more unified in underlying structure. The author uses the focus domain of the particle *dake* 'only' as a diagnostic to show that contrastive and non-contrastive *wa*-phrases occupy the same projection at LF. The constituent in the scope of *dake* must be within the maximal projection of the host head to which the particle attaches. When *dake* follows tense, its focus domain extends over TP and it can be associated with either the subject or object. This distinguishes between two potential sites for *wa*-marked elements: if the topic remains in TP, it should fall within the focus domain of *dake*, but if it is in a higher TopP projection, it cannot be associated with *dake*. (53) shows that the latter is the case:

(53) Kooen de wa kodomo ga asonde i-naka-ta dake da.
park in TOP child NOM playing be-NEG-PST only COP
"In the park, it was only the case that children were not playing."
(from *ibid*.:482)

Here, the sentence-initial topic *kooen de wa* 'in the park' cannot be in focus. *dake* attaches to tense, meaning that its focus domain is the TP and that the topic must be outside it.

Interestingly, sentence-internal *wa*-phrases also follow the same pattern.

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b. ? Ie, SUE O_i $Bill_j$ wa [$_{CP}$ Mary ga sukunakutomo 3-NIN NI WA t_i $kare_j$ no mise de
no Sue ACC Bill *wa* Mary NOM at least 3-CLF to *wa* he GEN shop at
syookaisita to] omotteiru.
introduced COMP thinking
"No, it is Sue that Bill thinks that Mary introduced to at least three people in his shop."

Contrastive topics, on the other hand, may also be marked by *nara* (Munakata, 2006 cited in Vermeulen, 2013:152). These alternative ways of marking contrastiveness will not be discussed here, however, as the focus is specifically on *wa*-marked elements.

(54) John ga kono ronbun wa yoma-nakat-ta dake da.
John NOM this paper TOP read-NEG-PST only COP
"It is only the case that John has not read this paper."

(from *ibid*.:483)

Similarly to (53) above, the contrastive topic cannot be taken to be in the focus domain of *dake*, i.e. the sentence cannot have the interpretation 'John did not read only this paper.' This implies that the contrastive topic here also has to occupy a TopP projection. Kishimoto argues that the topic phrase comes to occupy TopP through LF movement. Hence, the notion of topicality would play a crucial role in Japanese syntax, tallying with the widely accepted nature of Japanese as a topic-prominent language. While attractive as such, this idea can be further refined, as will appear below in section 4.3.3.3.

4.3.3.2 What's in wa?

There have been several proposals in the literature to unify the semantics of thematic and contrastive *wa*: essentially, this involves identifying a basic meaning, from which the more refined semantic or pragmatic contributions can be derived. Kuroda (1970) takes the sense of incompleteness to underlie both contrastive and thematic *wa*: using *wa*, the speaker makes an assertion about an object or event while implying that they are not committing to the validity of the same assertion relating to other specific objects or events. Kuroda analyzes thematic *wa* as a limit case of this general meaning. Essentially, the implicational force of *wa* presupposes a set of objects in question, consisting both of an object or objects about which the assertion of the sentence is made and an object or objects about which the assertion is not made.[56] If the latter part of the set of objects 'in question' reduces to null, the implicational force of *wa* is lost, but the sentence retains its core meaning with rhetorical force, explaining why it still feels like an assertion about certain objects: this is, essentially, subject-predicate structure.[57]

[56] This essentially translates into contrast, although Kuroda (1970) does not refer to this term.

[57] Kuroda derives further evidence for the proposal from the phenomenon of multiple topics or subjects. *Wa* with the implicational force defined above may recur in a sentence, although the degree of

However, how it is feasible to still talk theoretically of the contrastive meaning underlying thematic *wa* is unclear: after all, the defining alternatives to achieve contrastiveness are eliminated in the case of thematic *wa*, and this suggests a fundamental difference, rather than unity in meaning, of the two types of topics.

Another alternative for unifying thematic and contrastive *wa* is to capitalize on the notion of topicality. Saito (1985) argues that the basic meaning of *wa* is a topic marker. Topics with old information would then be interpreted as thematic and topics with new information as contrastive. This distinction partially follows from Kuno's (1978c cited in Saito, 1985:348ff.) Information Flow Principle, according to which new information tends to follow old information in word order: this explains why non-sentence-initial *wa*-phrases tend to receive contrastive interpretation. A similar effect occurs in German (Watanabe, 2003 cited in Heycock, 2008:75), where the initial position in a V2 sentence shares with Japanese *wa*-marking the property that subjects can occur there with no implication of contrast, while internal arguments seem to be interpreted as contrastive topics. This supports the idea that the interpretation of the two types of *wa*-phrases is at least partly determined by general properties of discourse organization.

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naturalness decreases with the increasing number of occurrences of such an element. A sentence may also have multiple thematic *wa*-phrases, which do not, by definition, carry the implication of contrast. Consider (i):

(i) Paris de wa Masao wa Eiffel too to Notre Dame no too ni nobotta.
Paris in TOP Masao TOP Eiffel tower and Notre Dame GEN tower to climbed
"In Paris, Masao climbed up the Eiffel tower and the Notre Dame."

(from *ibid*.:350)

Multiple subjects or thematic *wa*-phrases are, according to Kuroda, a result of reducing the implicational force of multiple *wa*s to zero. This claim, however, is very much subject to controversy. Kuno (1973) holds that the two types of *wa* differ in their possible number of occurrences in a sentence, arguing that a sentence can have only one thematic *wa*, so that in cases with multiple *wa*-marked constituents, the first one is thematic and the rest contrastive. A proper analysis of the phenomenon goes beyond the scope of the discussion here, but it should be noted that multiple *wa*-marked phrases in a sentence are possible, as are multiple *ga*-marked phrases (cf. Vermeulen (2005) and Heycock (2008)).

In an analysis along similar lines, Heycock (2008) argues that the two types of *wa* share the notion of thematicity, but preserves the idea of topics as given information, deriving the differences between the two types of *wa*-phrases from general properties of discourse organization. According to Fiengo and McClure (2002 cited in *ibid*.75-77), the speaker must provide a rheme and take another thing as given when making an assertive speech act. The sentence-initial constituent is then mapped to the given item. The contrastive interpretation, on the other hand, arises through associating the *wa*-marked phrase with Kontrast. In Vallduví and Vilkuna's (1998 cited in Heycock, 2008:74-75) framework this is an operator-like element that ranges over sets of alternatives and can combine with either the theme or rheme of a sentence. Association with rhematicity gives rise to contrastive focus, while association with thematicity results in contrastive topics. Crucially, the notion of thematicity is preserved in contrastive *wa*-phrases unlike in Saito's proposal; this means that on Heycock's account, contrastive *wa* marks elements that are both contrastive and thematic, but not contrastive rhemes, i.e. that contrastive *wa*-phrases can be contrastive topics but not contrastive foci. As such, *wa* is not a lexicalization of the operator-like Kontrast element. The analysis is further motivated by the fact that sentence-initial contrastive *wa*-phrases in addition to non-contrastive *wa*-phrases can also satisfy the requirement for a sentence to have a topic.

Hence, thematic and contrastive *wa*-phrases can be argued to at least partially overlap in their functions and grammatical positions, and this should be taken into account in any analysis aiming to understand their behaviour.

4.3.3.3 Bringing contrastiveness back into focus

The above approaches draw a distinction between thematic and contrastive topics but, other than Heycock, do not discuss the notion of contrastive focus. The two types of contrastive elements are close in function but differentiating them sheds some light on phenomena that are problematic if *wa*-phrases are treated solely as topics, as Heycock's approach capitalizing on the notion of thematicity does. This is the perspective Vermeulen (2013) adopts to contrastive *wa*.

In terms of syntactic position, Vermeulen observes that contrastive topics tend to be clause-initial, while contrastive foci are clause-internal. As such, contrastive topics must, contra to the above analyses, move to clause-initial position, occupying the same position as non-contrastive topics. This is because both types of topic are subject to an interface mapping rule for [topic]. Following Neeleman and van de Koot (2009, 2010, 2012), Neeleman, Titov, van de Koot and Vermeulen (2009), and Neeleman and Vermeulen (2012), this placement of a topic in clause-initial position is motivated by its effects at the interface. Crucially, the movement takes place to feed the mapping rule operating between syntax and information structure. The sentence-initial position of [topic] marks the rest of the sentence as the comment and allows for a transparent mapping between syntax and information structure: as such, it operates in a crucially relational way.

Where the two types of topic differ is that while contrastive topics show properties of movement, non-contrastive topics are base-generated in their surface position, binding a *pro* (Hoji, 1985 cited in *ibid.*145; Saito, 1985).[58] Vermeulen assumes further that non-contrastive *wa* is assumed to be a separate lexical item from contrastive *wa* – this, however, is not crucial to the discussion here.

Empirically, Vermeulen's argument for postulating a contrastive focus category is based on semantic, phonological and syntactic observations. First, elements that cannot be topics semantically according to the criteria discussed in section 4.3.3 above can be marked by contrastive *wa*; this includes, for example, quantifiers such as *nanninka* 'some people' with a non-specific reading. A contrastive *wa* phrase may also correspond to a *wh*-expression in the preceding question. Consider (55):

[58] Although Vermeulen does not state it explicitly, the covert assumption seems to be that the mapping rule requires contrastive topics to move into sentence-initial position obligatorily. However, cross-linguistically there is evidence for the optional application of interface-driven movement operations, especially with respect to contrast. In Dutch, for instance, the domain of contrast is unambiguous only when a constituent has undergone movement to the left periphery, but contrastive interpretation can also be achieved in situ, albeit in this case the contrastive interpretation need not be there. As was noted above in section 4.2.1, the same would seem to hold for Finnish contrast (Hollingsworth, 2014).

(55) A: How much does a new hybrid car cost?

B: NIMAN-GOSEN DORU WA suru
25,000 dollars TOP costs
"It costs (at least) $25,000."

(from Tomioka, 2009:5)

Here, the contrastively focused *nimangosen doru wa* '$25,000' cannot be construed as old information. Independently, Tomioka (2009) notes that while what he takes to be thematic topics always refer to a contextually familiar or recoverable entity, contrastive topics on his definition can be familiar or novel. Tomioka further notes that a thematic topic must be nominal or quasi-nominal, i.e. an NP, CP, or PP, whereas a contrastive topic can be of any category, including VP, AdjP, and AdvP. However, if the latter category is redefined as contrastive focus following Vermeulen's approach, no non-referential topics will have to be postulated, and topics, whether thematic or contrastive, can be recast as a semantically more unified category.[59]

Furthermore, contrastive *wa*-phrases have prosodic properties identical to contrastive foci (Vermeulen, 2013). A thematic topic does not receive a focal accent while a contrastive topic must carry one (Tomioka, 2009; see also Kuno, 1973). In practice, a contrastive topic behaves just like a prototypical focus, in that it is associated with Ishihara's (2003 cited in Tomioka, 2009:4) post-focus reduction: a high pitch accent is placed on the focus element, and the pitch accent of the material on its right is radically lowered.

Finally, the restriction against a contrastive focus moving across a contrastive topic (Neeleman and van de Koot, 2010; Vermeulen, 2013) discussed in section 4.3.1 also holds for Japanese. Vermeulen notes that it is possible to extract a contrastive focus from an embedded clause, across a *wa*-marked phrase. If this phrase were a

[59] Of course, all topics need not form a unified category; consider Frascarelli and Hinterhölzl's (2007) classification of different topic types, for example. However, what is important in the discussion here is that certain properties cluster together, motivating the postulation of an additional contrastive focus category.

contrastive topic, the extraction should be unacceptable. In (56), the contrastive *wa*-phrase in situ in the embedded clause is non-specific, and hence not a contrastive topic:

(56) Bill$_j$ wa [$_{CP}$ Mary ga sukunakutomo 3-NIN NI WA Jane o kare$_j$ no
Bill TOP Mary NOM at least 3-CLF to TOP Jane ACC he GEN
mise de syookaisita to] omotteiru.
shop at introduced COMP thinking
"Bill thinks that Mary introduced Jane to at least three people in his shop."

In a correction context, the correcting phrase – a contrastive focus – can either remain in situ (57a) or move across the embedded *wa*-phrase, as in (57b), with only slightly decreased acceptability:

(57) a. Ie, Bill$_j$ wa [$_{CP}$ Mary ga sukunakutomo 3-NIN NI WA SUE O
no Bill TOP Mary NOM at least 3-CLF to TOP Sue ACC
kare$_j$ no mise de syookaisita to] omotteiru.
he GEN shop at introduced COMP thinking
"Bill thinks that Mary introduced Jane to at least three people in his shop."

b. ?Ie, SUE O$_i$ Bill$_j$ wa [$_{CP}$ Mary ga sukunakutomo 3-NIN NI WA t$_i$
no Sue ACC Bill TOP Mary NOM at least 3-CLF to TOP
kare$_j$ no mise de syookaisita to] omotteiru.
he GEN shop at introduced COMP thinking
"No, it is Sue that Bill thinks that Mary introduced to at least three people in his shop."

(from *ibid.*:151)

If *3-nin ni wa* were a contrastive topic, (57b) should violate the constraint in (34).

What emerges from the discussion is that *wa* cannot be straightforwardly equated with thematic topics, contrastive topics, or contrastive foci. With respect to the following discussion, this implies that the relevant phrases cannot be identified

merely by the presence of *wa* nor the position of the *wa*-marked phrase; indeed, whether the position of *wa*-phrases follows from relational principles, such as Vermeulen's (2013), or whether there is a TopP projection, movement to which is not visible in the case of sentence-internal *wa*-phrases, as argued by Tomioka (2009), remains unclear. Instead, the context has to be considered separately for each case when assessing the data.

4.3.4 Japanese contrastive (and non-contrastive) wa under embedding

Just like their Finnish counterparts, Japanese *wa*-marked contrastive phrases are freer in their distribution than the particles. In the following, I present data in the relevant contexts – the complement clauses identified in Hooper and Thompson's (1973) typology and *because*-, *if*-, and *although*-clauses – contrasting the acceptability of clause-initial and -internal *wa*-phrases.

In situ contrastive *wa*-phrases are accepted in complement clauses embedded under all the predicates in Hooper and Thompson's classification. These are preferred to clause-initial *wa*-phrases, which are either unacceptable or dispreferred compared to their clause-internal counterparts. This is shown below for Group A, B, C, D and E predicates in examples (58), (59), (60), (61) and (62), respectively.[60]

(58) There's a big sale coming up, and Kazu and Shiori are looking through shop catalogues as they want to buy a present for their friend Yuki. They've both spoken to Yuki's mother, Ms Tanaka, about it.

Kazu: Yuki wa kono kuroi kaban o hoshigatteiru sooda.
Yuki TOP this black bag ACC want hear
"I hear Yuki wants this black bag."

[60] It should be noted that one informant consistently prefers an accusative marked (the particle *-o*), stressed phrase instead of a clause-internal *wa*-phrase in all contexts. However, *wa*-phrases remain acceptable in clause-internal position, even for this informant.

Shiori: a. Iie, Tanakasan wa Yuki ga SONO AKAI KABAN WA hoshii
no Ms Tanaka TOP Yuki NOM that red bag TOP want
to itta.
COMP said

b. ?? Iie, Tanakasan wa SONO AKAI KABAN WA Yuki ga
no Ms Tanaka TOP that red bag TOP Yuki NOM
hoshigatteiru to itta.
want COMP said
"No, Ms Tanaka said that Yuki wants that red bag."

(59) There's a big sale coming up, and Kazu and Shiori are looking through shop catalogues as they want to buy a present for their friend Yuki. They've both spoken to Yuki's mother, Ms Tanaka, about it.

Kazu: Yuki ga kono kuroi kaban o hoshigatteiru to omou.
Yuki NOM this black bag ACC want that think
"I think Yuki wants this black bag."

Shiori: a. Doodaroo… Tanakasan nara Yuki ga SONO AKAI
I.wonder Ms Tanaka TOP Yuki NOM that red
KABAN WA hoshigatteiru to omou.
bag TOP want COMP think

b. ?? Doodaroo… Tanakasan nara SONO AKAI KABAN WA
I wonder Ms Tanaka TOP that red bag TOP
Yuki ga hoshigatteiru to omou.
Yuki NOM want COMP thinks
"I wonder… Ms Tanaka believes that Yuki wants that red bag."[61]

[61] One informant accepts both versions of Shiori's response here. However, the same informant strongly rejects the clause-initial *wa*-phrase embedded under *yuu* 'say'. I have no explanation for this.

(60) There's a big sale coming up, and Kazu and Shiori are looking through shop catalogues as they want to buy a present for their friend Yuki. They've both spoken to Yuki's mother, Ms Tanaka, about it.

Kazu: Mite! Takusan Gucci no kaban ga arimasu. Yuki ni, kono kuroi
look many Gucci GEN bag NOM is Yuki DAT this black
kaban o agemashoo ka?
bag ACC give Q
"Look! There's lots of Gucci bags there. Why don't we give Yuki this black one?"

Shiori: a. Wakaranai… Tanakasan ga Yuki ni SONO AKAI KABAN WA
understand-NEG Ms Tanaka NOM Yuki DAT that red bag TOP
ageru kanoosei ga arimasu.
give possibility NOM is

b. ?? Wakaranai… Tanakasan ga SONO AKAI KABAN WA Yuki ni
understand-NEG Ms Tanaka NOM that red bag TOP Yuki DAT
ageru kanoosei ga arimasu.
give possibility NOM is
"I don't know… It's possible that Ms Tanaka will give Yuki that red bag."

(61) Kazu and Shiori have been thinking about their friend Yuki's birthday present. They've been talking to her mother, Ms Tanaka, about the previous year's presents.

Kazu: Kyonen Tanakasan wa Yuki ni kuroi kutsu o katta sooda. Demo
last year Ms Tanaka TOP Yuki DAT black shoes ACC bought hear but
Yuki wa kiraidatta!
Yuki TOP hated
"I heard that last year Ms Tanaka bought Yuki black shoes. But Yuki hated them!"

Shiori: a. Soojanakatta yo. Kuroi kutsu wa daijoobudatta. Demo
so-COP-PST-NEG *yo* black shoes TOP okay-PST but
Tanakasan wa Yuki ni AKAI KUTSU WA ageta koto o
Ms Tanaka TOP Yuki DAT red shoes TOP gave thing ACC
kookaishiteiru.
regrets

b. ?? Soojanakatta yo. Kuroi kutsu wa daijoobudatta. Demo
so-COP-PST-NEG *yo* black shoes TOP okay-PST but
Tanakasan wa AKAI KUTSU WA Yuki ni ageta koto o
Ms Tanaka TOP red shoes TOP Yuki DAT gave thing ACC
kookaishiteiru.
regrets
"It wasn't like that. But Ms Tanaka regrets giving Yuki the red shoes."

(62) There's a big sale coming up, and Kazu and Shiori are looking through shop catalogues as they want to buy a present for their friend Yuki. They've both spoken to Yuki's mother, Ms Tanaka, about it.

Kazu: Yuki wa kono kuroi kaban o hoshigatteiru sooda.
Yuki TOP this black bag ACC want hear
"I hear Yuki wants this black bag."

Shiori: a. Watashi mo soo kiita. Demo kinoo Tanakasan ga Yuki ni
I also so heard but yesterday Ms Tanaka NOM Yuki DAT
AKAI KABAN WA katta to shirita.
red bag TOP bought COMP found out

b. ?? Watashi mo soo kiita. Demo kinoo Tanakasan ga AKAI
I also so heard but yesterday Ms Tanaka NOM red
KABAN WA Yuki ni katta to shirita.
bag TOP Yuki DAT bought COMP found out
"I also heard that. But yesterday I found out that Ms Tanaka bought Yuki the red bag."

This pattern of acceptability where clause-internal *wa*-phrases are preferred over clause-initial ones is independently supported by observations in the literature. There is a general consensus that contrastive *wa*-phrases are freer to occur in embedded contexts than non-contrastive ones: Kuno (1973), for instance, argues that thematic *wa*-phrases are replaced by the particle *ga* in embedded contexts. Heycock (2008) echoes this in arguing that thematic *wa* in clause-initial position occurs only in root contexts, including matrix clauses and subordinate clauses selected by certain verbs such as *yuu* 'say'.[62] Given the observation above in section 4.3.3.1 that clause-initial *wa*-phrases tend to be thematic and clause-internal ones contrastive, the acceptability pattern follows from these premises: *wa*-marked thematic phrases are dispreferred in embedded contexts, and *wa*-marked phrases in clause-initial position tend to be thematic, so it is natural that if contrastive *wa*-phrases are to be accepted in embedded contexts, they will be found in situ.

The same pattern emerges in adverbial clauses, as shown in *because*-, *if*-, and *although*-clauses in (63), (64) and (65), respectively:

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[62] However, Haegeman (2006) argues that *wa*-topicalization is possible in peripheral but not central adverbial clauses:

(i) * Mosi sono yoona zassi wa, (anata ga) yome-ba, (anata wa) yasai ga
if that like magazine TOP (you NOM) read(COND)-if (you TOP) vegetable NOM
sukini narimasu.
like become
"If these magazines, you read, you will come to like vegetables."

(ii) Mosi sono yoona zassi wa (anata ga) sukide-nai(CONCLUSIVE)-naraba, naze
if that like magazine TOP (you NOM) like-NEG-if why
(anata wa) (sorera o) kai-tuzukerunodesu ka?
(you TOP) (them ACC) buy-continue Q
"If such magazines, you don't like, why do you keep buying them?"
(from *ibid*.:1658)

In this case, though, my informant disagrees with Haegeman's data, accepting both utterances, but preferring a contrastive interpretation. In (i), a thematic interpretation may be available, but in (ii) only a contrastive interpretation is accepted. As so often with judgements of discourse-related phenomena, there is no clear consensus, but it seems safe to say that thematic *wa*-phrases are certainly very restricted, if not wholly unavailable, in embedded contexts.

(63) Kazu and Shiori are shopping for a present for Yuki.

Kazu: Yuki ni kono kuroi kaban o agemashoo ka.
Yuki DAT this black bag ACC give Q
"Let's give Yuki this black bag."

Shiori: a. Iie, agenai yo, Yuki ga KONO AIKAI KABAN WA
no give-NEG *yo* Yuki NOM this red bag TOP
hoshigatteiru kara.
want because

b. ?? Iie, agenai yo, KONO AIKAI KABAN WA Yuki ga
no give-NEG *yo* this red bag TOP Yuki NOM
hoshigatteiru kara.
want because
"No, let's not, because Yuki wants this red bag."

(64) Kazu and Shiori are shopping for a present for Yuki, and they've also talked to Yuki's mother, Ms Tanaka, earlier. They see a big display of bags in different colours.

Kazu: Korera no kaban wa subete sugoi desu ne! Yuki wa suki kamoshirenai. Kono
these GEN bag TOP really great COP *ne* Yuki TOP like probably this
kuroi kaban o kaimashoo ka.
black bag ACC buy Q
"These bags are really great! Why don't we buy Yuki this black bag?"

Shiori: a. Chotto… Tanakasan mo kuroi kaban ga daisuki. Demo Yuki ni
a little Ms Tanaka also black bag NOM love but Yuki DAT
KONO AKAI KABAN WA ageru-naraba, Tanakasan wa shitto
this red bag TOP give-if Ms Tanaka TOP jealous
shinai daroo.
do-NEG will

b. ?? Chotto… Tanakasan mo kuroi kaban ga daisuki. Demo, KONO AKAI
a little Ms Tanaka also black bag NOM love but this red
KABAN WA Yuki ni ageru-naraba, Tanakasan wa shitto shinai daroo.
bag TOP Yuki DAT give-if Ms Tanaka TOP jealous do-NEG will
"That's a bit difficult… Ms Tanaka also loves the black bag. But if we give Yuki this red bag, Ms Tanaka won't be jealous."

(65) Kazu and Shiori are shopping for a bag for their friend Yuki, when they come across a big display of bags in various colours.

Kazu: Kono kuroi kaban wa hoka yorimo yasui… Kore o kaimashoo ka.
this black bag TOP others than cheap this ACC buy Q
"This black bag is cheaper than the others… Why don't we buy this one?"

Shiori: a. Yuki ga SONO AIKAI KABAN WA hoshigatteiru ga, daijoobu desu.
Yuki NOM that red bag TOP want but okay COP

b. ?? SONO AKAI KABAN WA Yuki ga hoshigatteiru ga, daijoobu desu.
that red bag TOP Yuki NOM want but okay COP
"It's okay, although Yuki wants that red bag."

These data are in contrast with claims made in the literature. While it is accepted that contrastive *wa* can occur in certain non-root contexts (Kishimoto, 2009), it is argued to be more restricted than the data here suggest. According to Hara (2006 cited in Tomioka, 2009:20), for instance, contrastive *wa*-phrases cannot appear in adjunct clauses that do not license speech acts within themselves, such as *when*-, *if*-, and relative clauses; if these embedded clauses contain attitude predicates such as 'think', 'believe', or 'say', on the other hand, contrastive topics become possible. Kishimoto, in turn, identifies the clause types that can and cannot host contrastive *wa*-phrases with Minami's (1974, 1993 cited in *ibid*.:503) tri-partite typology of embedded clauses. Of these, the A-type (headed by *-nagara* 'while', *-tutu* 'while', for example) and the B-type (headed by *-tara* 'if', *-nara* 'if', and *-node* 'since', for example) clauses do not project a structure that allows *wa*-phrases, while C-type clauses (headed by *-ga* 'but', *-kara* 'because', *-keredo(mo)* 'although', for example) have the

structure necessary for allowing them. I will not go into Minami's typology here as it is largely descriptive; what is key is that Minami's observations are in line with the framework here.

However, the data collected here show that contrastive *wa*-phrases are significantly freer in their distribution when they appear in clause-internal position. They are also accepted uniformly across the testing contexts, unlike contrast in Finnish, and clause-initial *wa*-phrases are also uniformly rejected across contexts. What emerges from the data is a four-way comparison between discourse particles and contrast in two languages, indicating points of variation both across the phenomena and the languages. Before concluding and discussing what this implies with respect to the divide between the CP and the Grounding Layer, I turn to a final piece of independent evidence supporting the distinction between CP and the higher Grounding Layer: topic particle stranding.

4.4 A note on lonely particles

Consider the examples in (66):

(66) Q: Keetai wa dono kisyu ga hayatteru no?
mobile TOP which machine NOM popular Q
"Speaking of mobiles, which machines are popular?"

a. Keetai wa Sony no kisyu ga hayattemasu.
mobile TOP Sony GEN machine NOM popular

b. ∅ Sony no kisyu ga hayattemasu.
Sony GEN machine NOM popular

c. ∅ wa Sony no kisyu ga hayattemasu.
TOP Sony GEN machine NOM popular
"(Speaking of mobiles,) Sony's machines are popular."
(from Nasu, 2012:206-207)

Although the answers are interpretatively the same, they differ in the extent to which the clause-initial topic, *keetai wa* is realized. In (66a), the answer spells out a full topic, while in (66b) it is dropped. (66c) is an instance of topic particle stranding, the phenomenon under discussion here: only the topic particle *wa* appears, the actual NP being null.

Compared to how widespread argument drop is in Japanese (see chapter 6 for discussion), topic particle stranding is a much less established feature. In the mid-20th century, it was documented as extremely rare (Hattori, 1949 cited in Nasu, 2012:206ff.) but its use has increased in frequency more recently (Yoshida, 2004; Arita, 2005, 2009 cited in *ibid*.:206ff.). It is also a much less researched feature, compared to other forms of ellipsis or nullness in Japanese. The main work here is Nasu (2012), on which the following discussion is largely based. I will first set out the empirical facts relating to the distribution of topic particle stranding, and then introduce Nasu's syntactic analysis of the phenomenon.

Although the interpretation of topic particle stranding corresponds to that of a wholly spelled out topic in the same position, the distributions of the two differ in that the stranded option is more restricted. First, in contrast to *wa*-topics, topic particle stranding cannot occur in concessive clauses. Second, a stranded *wa* can occur in quoted, but not in reported, clauses. The two clause types are illustrated in (67):

(67) a. John$_i$ ga [(a!) sore wa {*kareno$_i$/ bokuno$_i$} saihu da (yo) to] itta.
John NOM (oh!) that TOP {*his/ my} wallet COP *yo* COMP said
"John$_i$ said, "Oh, that is {*his$_i$/ my$_i$} wallet.""

b. John$_i$ wa zyoosi ni [(*a!) sono syorui wa {kareno$_i$/ *bokuno$_i$}
John TOP boss DAT (*oh!) that document TOP {his/ *my}
buka ga nakusita (*yo) to] meeru de hookokusuru tumori rasii.
staff NOM lost *yo COMP e-mail by to.report intention seem
"It seems that John$_i$ intends to report to his boss by e-mail that, speaking of the document, {his$_i$/ *my$_i$} staff lost it."

(from *ibid*.:212)

(67a) shows that a quoted clause is compatible with interjections and sentence-final particles, but not with an anaphoric pro-form, as is expected of root phenomena. The acceptability patterns are reversed for the reported clause in (67b). Topic particle stranding thus patterns with interjections and sentence-final particles. Again, it differs from topicalization, which can occur in both types of clauses, as the examples above show.

Topic particle stranding is also sensitive to the notions of speaker and addressee. Nasu argues that it is not compatible with a sentence uttered in the absence of an addressee, and occurs exclusively in replies to questions. Arita (2005 cited in *ibid*.:216) treats the stranded topic particle as a response marker, the function of which is to show that the speaker acknowledges the addressee's question as directed to them and that the utterance to follow is given in response to it. In other words, it carries the connotation of 'I (am going to) reply to you.'[63]

However, Nasu notes that a similar phenomenon can occur in situations where there is only the speaker present in the discourse context. Consider (68):

(68) The speaker lives all alone. One day he goes into the kitchen to get a bottle of wine. He opens the door of the refrigerator, looks at the bottle and says:

∅ wa yametokuka.
∅ TOP refrain
"I will refrain from drinking this."

(from *ibid*.:215ff.)

According to Nasu, this is a different use of *wa* than the stranded topic particle *wa*. Instead, it is a deictic pro-form. Consider (69):

[63] This way of spelling out the function of the stranded topic marker very much mirrors Ross's (1970) Performative Hypothesis.

(69) The speaker is talking to another person.

Kono pen, watashi no yaro. [Pointing to another pen]. ∅ wa?
this pen I GEN COP ∅ TOP
"This pen is mine. What about that one?"
(from Arita, 2009 cited in *ibid*.:215ff.)

According to Arita (2009), the gap here refers directly to the entity present in the context of the dialogue, replaceable with an overt deictic form, such as *are* 'that', and impossible without a gesture or gaze directed at the person or thing that serves as the non-linguistic antecedent. The gap supported by *wa* is hence a deictic pro-form; Nasu argues that the *wa* in the speaker-only context in (68) is an instance of the same phenomenon.

Yet, as was argued in the previous chapter, certain addressee-oriented elements can occur in self-talk contexts as well. As such, *wa* in (68) could simply parallel sentence-final particles such as *na*, Finnish *-hAn,* or self-talk *you* used to refer to the mindless self (Holmberg 2010a). This would avoid postulating an additional element in the lexicon. However, it would set stranded *wa* apart from the particle *ne* and politeness marking in Japanese, for which it is crucial that the addressee is not the speaker as well. As such, adopting a deictic pro-form *wa* to account for (68) seems conceptually motivated against the bigger picture emerging from the discussion here.

A further pragmatic constraint proposed by Nasu concerns the role of the speaker. According to Nasu, topic particle stranding is only possible when the speaker is qualified as a knowledge-holder. It follows from this that topic particle stranding is possible in declaratives, imperatives, and exhortatives, but not in interrogatives, since in questions the speaker seeks knowledge that they do not have. That the relevant distinction here lies in illocutionary force rather than sentence type is supported by (70):

(70) Q: Kono nimotu wa doo sitaraii no?
this baggage TOP what shall.do Q
"What shall I do with this baggage?"

a. ∅ wa asokoni oitoite-kureru?
∅ TOP over.there leave.please
"Speaking of the baggage, will you please leave it over there?"
(from *ibid*.:219)

Here, the answer is an interrogative syntactically, but it has the illocutionary force of a request. It follows that topic particle stranding is acceptable.[64]

Given how the distribution of topic particle stranding is akin to that of sentence-final particles, Nasu argues that the stranded *wa* particle appears in a Speech Act Layer – here, Grounding Layer – in the clausal structure. As evidence, consider (71):

(71) Q: Syukudai wa owatta no?
homework TOP finished Q
"Have you finished your homework?"

a. {∅ wa_i zituwa/ *zituwa ∅ wa_i} mada owatte-nai n desu.
∅ TOP to.be.honest/ *to.be.honest ∅ TOP yet finish-NEG COMP COP
"Speaking of the homework, to be honest, I haven't finished it yet."
(from *ibid*.:213-214)

The adverb *zituwa* 'to be honest' occupies the left edge of ForceP. As the stranded *wa* can only occur in a position preceding *zituwa*, it must occur above ForceP. Nasu posits a Speech Act domain above ForceP akin to Speas and Tenny's (2003) proposal, consisting of saP and sa*P projections.[65]

To encode the restriction that the speaker must be a knowledge-holder, Nasu argues that the speaker argument must carry a feature to this effect, which then establishes an

[64] Looking ahead, a task for future research would be to determine which types of questions in Oguro's (2014, 2015, 2016) typology, as discussed in the following chapter, topic particle stranding can occur in.

[65] As nothing hinges on the specifics of Nasu's proposed Speech Act Layer, I will not delve further into it; crucially, Nasu's findings function equally in Wiltschko and Heim's (2016) framework adopted here.

agreement relation with the speech act head. The stranded particle occupies the outer specifier of saP, which is licensed by the sa° bearing the knowledge-holder feature.

Furthermore, the interpretative similarity between topic particle stranding and topicalization is captured by linking the stranded particle and TopP. Nasu takes TopP in topic particle stranding structures to host a pro in its specifier, which is licensed as a topic by the Top head and bound by the stranded particle. The structure is illustrated in (72b) for (66c), repeated here as (72a):

(72) a. ∅ wa_i Sony no kisyu ga hayattemasu.
∅ TOP Sony GEN machine NOM popular
"(Speaking of mobiles,) Sony's machines are popular."

b. [$_{saP}$∅$_i$-wa…[$_{ForceP}$[$_{TopP}$ pro_i [$_{Top'}$[Sony no kisyu ga hayattemasu] Top°]]Force°]…sa°]

(from *ibid*.:222)

The relation between *wa* and pro is one of binding rather than movement: a resumptive pronoun can occur here, and according to Saito (1985), resumptive pronouns generally appear in the absence of movement chains. The analysis is further supported by the observation that a full NP topic cannot occur in sentences with topic particle stranding, as spec,TopP is occupied by pro. Furthermore, cases lacking a binding relation between the stranded particle and a co-indexed topic are ruled out. I will not discuss the formal analysis further here, as the empirical point holds regardless of the theoretical assumptions: topic particle stranding is very much a discourse participant-oriented phenomenon, and the fact that it patterns with sentence-final particles rather than standard topics in terms of its distribution further supports the idea of a higher Grounding Layer.

4.5 Summary

The empirical findings of this chapter are summarized in Table 6:

	Group A predicates	Group B predicates	Group C predicates	Group D predicates	Group E predicates	*if*-clauses	*because*-clauses	*although*-clauses
Finnish particles	✓	✗	✗	✗	✗	✗	✗	✗
Japanese particles	✓	✗	✗	✗	✗	✗	✗	✗
Finnish contrast	✓	✓	?	✗	?	✗	✓	✓
Japanese *wa*-contrast in situ	✓	✓	✓	✓	✓	✓	✓	✓
Japanese *wa*-contrast fronted	? ✓	? ✓	? ✓	? ✓	? ✓	? ✓	? ✓	? ✓

Table 6. Discourse particles and contrastive elements across embedded contexts in Finnish and Japanese

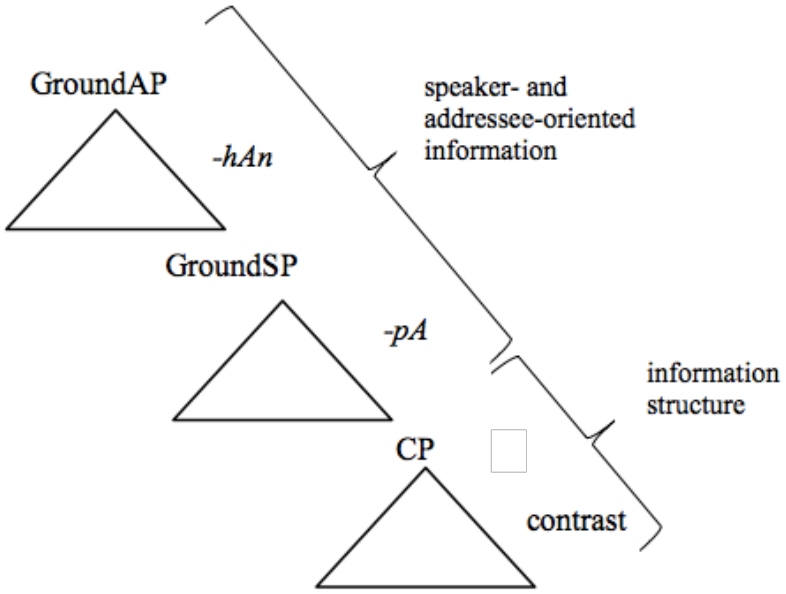
The key observation is that there is a stark contrast between the availability of the discourse particles and the availability of the expression of contrast across the contexts, and this holds for both languages. While the particles can occur only in the complements of Group A predicates (in addition to matrix clauses, of course), expressions of contrast are clearly more available in embedded contexts. The contexts where contrastive fronting in Finnish can occur reflect roughly those where embedded root phenomena are taken to be available; in Japanese clause-internal contrastive *wa*-phrases have been shown to be available in all the non-matrix contexts tested here, while clause-initial *wa*-phrases are more restricted in their distribution, although importantly not to the extent as the sentence-final particles are.

Crucially, this supports the central hypothesis here, i.e. that there is a significant divide between the Grounding Layer and the lower left – or right – periphery, hosting non-discourse participant-related information-structural elements, including those associated with the expression of contrast. In other words, the data show how two types of information often bundled under the single notion of 'discourse' behave in systematically different ways in two unrelated languages. On the one hand, these findings are corroborated by the increasing body of evidence for speech act-related projections discussed in chapter 2, and on the other, they support the function-based analysis of the Finnish and Japanese particles presented in the previous chapter as crucially speaker- and addressee-oriented. Already there evidence from the scope relations of the particles and different types of adverbs indicated that the particles occupy a CP-external position on the clausal spine.

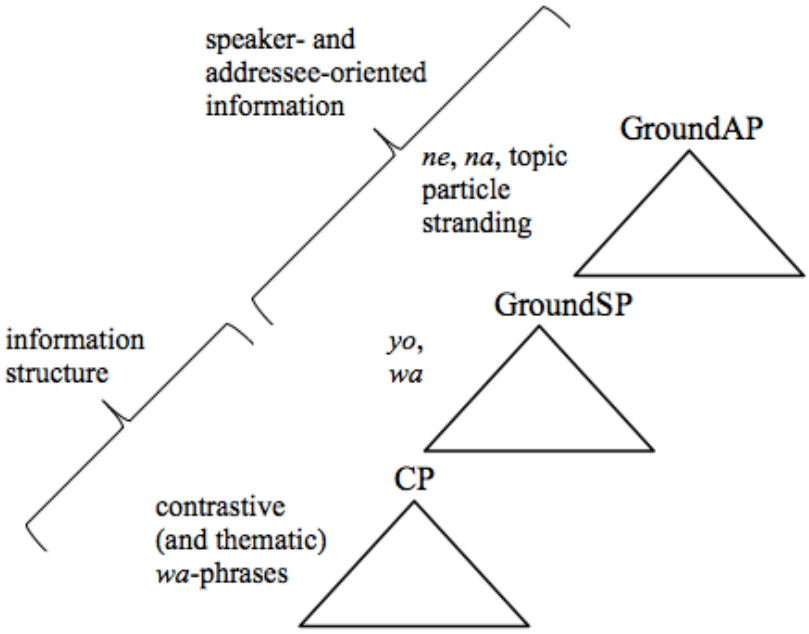
The distinction between information structure-oriented contrast and speaker- and addressee-related perspective is conceptually motivated, too. It can be seen as drawing a line between phenomena internal to the syntactic domain, including the syntax-pragmatics interface, and those that are external to it, the availability of which is determined by a syntax-external interpretative module (De Cat, 2012 cited in Corr, 2017:12). On the other hand, for Rizzi (1997:283), the complementizer system is "the interface between a proposition content [--] and the superordinate structure (a higher clause, or possibly, the articulation of discourse, if we consider a root clause)"; thus, even the original motivation for the cartographic split CP approach leaves the door open for a higher speech act-oriented layer. Finally, an additional piece of independent evidence comes from German Sign Language, as noted by Bross and Hole (2017 cited in Zhang, 2017:32), where functions in the speaker-oriented domain, such as speech-act marking, evaluation, and epistemic modality, show a clear range of non-manual markers – they are expressed using non-manual markers of the upper face and can be signed simultaneously with other signs – in contrast to other, lower-level phenomena.

In terms of the USH-based methodology, the above discussion has motivated the presence of the Grounding Layer based on the relative position of the discourse particles, which has shown to be higher than that of contrastive expressions. This tallies with the findings of chapter 3, where the argument for the Grounding Layer was made in terms of the absolute position of the particles, i.e. based on their interpretative function. To sum up the findings so far, the structures argued for the two languages are schematically represented in (73a) for Finnish and (73b) for Japanese:

(73) a.



b.



Of course, the data open the door to questions to be asked and answered: how, for example, should the different types of embedded clauses and contrastive elements be analyzed formally, and do they tally with Haegeman and Endo's (forthcoming) approach? There are also differences in the behaviour of contrast in the two languages, with – at least – Japanese clause-internal contrastive *wa*-phrases being freely available in factive contexts where Finnish contrast is not. This raises the question of the exact representation of contrast in both languages, as is indicated by the non-specificity of the position for contrast in the above structures. One option that I explored above is that contrastive fronting is a crucially relational notion (see, for

example, Neeleman and van de Koot (2010) for an essentially relational account of contrast in Dutch), i.e. there need not be a specific contrastive projection but the contrastive interpretation is arrived at by simply moving the contrastive element to some position higher than other elements in the clause. Importantly, though, the contrast relation achieved by moving the relevant element is achieved within the CP domain, and does not involve the higher, speech act-oriented structure.

However, as much as various further questions may be flooding in through the door opened by Table 6, they are not the focus of the discussion here. Rather, what I set out to show, has been shown. The rest is best left for other research to tackle, because it turns out that there is more structure to be built into and onto the Grounding Layer that has been established so far: the next chapter will set out the empirical need and – quite literally – respond to it.

Chapter 5 Calling for more structure, and responding to this need

5.1 Introduction

The preceding discussion has established a distinction between information-structural notions in the C domain – the expression of contrast – and speaker- and addressee-related notions in the Grounding Layer. However, there is evidence that the structure above the C domain can be articulated still further. As was discussed in chapter 2, this idea is captured in Wiltschko and Heim's (2016) and Heim and Wiltschko's (2017) notion of Response Layer, which encodes what kind of a response the speaker is seeking from the addressee. So far, the discussion has focused mainly on declaratives, motivating the Grounding Layer, but data on interrogatives reveal relevant interactions between different discourse-related components; this was already implied in the discussion of the particles' functions in chapter 3, where, for example, the softening effect of *-hAn* and *-pA* on imperatives and interrogatives and the response-seeking function of *ne* were mentioned.

The following discussion aims to establish the presence of the Response Layer in a more principled and essentially less anecdotal way. In section 5.2, I will first make a detour into different types of Japanese questions and how they relate to politeness marking. The issues faced by different attempts to capture their differences will ultimately serve a motivation for the additional Response Layer; section 5.2.1 introduces Wiltschko and Heim's proposal in more detail and applies it to the Japanese data. Section 5.3 returns to the Finnish particles, and sheds light on how the Response Layer will need to allow for gradience in the phenomena it represents. Section 5.4 concludes.

5.2 Question types and politeness marking in Japanese

In Japanese interrogatives, there is an important link between politeness marking – a type of allocutive agreement – and the function of the question. As mentioned in section 3.3.2 in chapter 3, the dependence of the question marker *ka* on politeness

marking was originally discussed by Miyagawa (2012). The core data are repeated in (1):

(1) a. Dare ga ki-mas-u ka?
who NOM come-POL-PRS Q
"Who will come?"

b. * Dare ga kuru ka?
who NOM come Q

(from *ibid*.:87)

According to Miyagawa, *ka* can only occur in a non-embedded question when the verb carries the politeness marker. This gives rise to the contrast between the acceptable (1a) with politeness marking, *kimasu*, and the unacceptable (1b) with the plain form *kuru*. To ask the same question using the plain form, either rising intonation or the particle *no* can be used.

An elaboration on the analysis of the particles is in order here. Kuwabara (2013) argues that while *ka* is a Force marker, *no* is related to Finiteness and as such does not encode interrogative clause type. This is also reflected in Saito and Haraguchi's (2012) cartographic analysis of the three Japanese complementizers. *No* merges with TP, functioning as a complementizer for propositions, while *ka* – a complementizer for questions – occupies Force. The third complementizer, *to*, is ambiguous between a marker of direct quotation – akin to English quotative *be like* – and a complementizer that appears with indirect discourse. Saito and Haraguchi discuss this latter function of *to*, taking it to merge as a Report head above Force. Given these properties, the complementizers form a hierarchy as in (2):

(2) *to* > *ka* > *no*

This is supported by the observation that the three can co-occur as in (3):

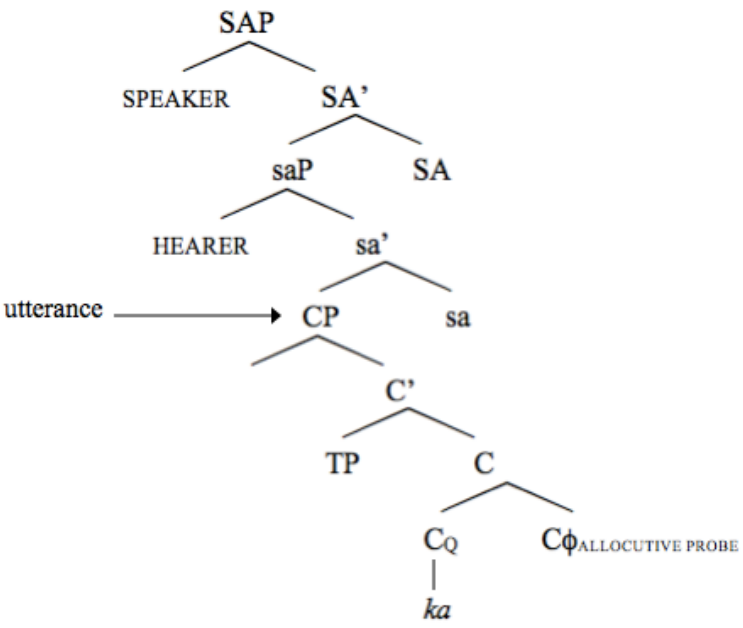
(3) Taroo wa [$_{CP}$ kare no imooto ga soko ni ita (no) ka (to) minna ni
Taroo TOP he GEN sister NOM there at was *no* *ka* *to* all DAT
tazuneta.
inquired
"Taroo asked everyone if his sister was there."

(from *ibid.*:107)

This serves as another piece of evidence for a relatively highly articulated right periphery in Japanese. The distinctions observed here may be part of why politeness marking is necessary with *ka* but not with *no*.

Miyagawa accounts for the contrast in (1) by assuming that *ka* must be selected. The presence of politeness marking projects the Speech Act Layer, which can then license *ka*. Miyagawa adopts Haegeman and Hill's (2013) version of Speas and Tenny's (2003) Speech Act Layer, where the higher Speech Act Phrase, SAP, hosts the speaker, and the lower projection, saP, the hearer. The relevant structure is illustrated in (4):

(4)



(from *ibid.*:88)

Here, the C_Q head hosts *ka*, selected by sa; sa, in turn, is projected because of the presence of the politeness marker. The other C head hosts the allocutive probe, which

raises to the sa head, and then further to SA, where it c-commands its goal, HEARER, and has the entire utterance in its scope as a politeness marker.

In embedded contexts, *ka* need not appear with politeness marking as it can be licensed by bridge verbs selecting their complements, such as *kiku* 'ask':

(5) Bill wa [$_{CP}$ dare ga kuru ka] kiita.
Bill TOP who NOM come Q asked
"Bill asked who will come."

(from *ibid*.:87)

In summary, then, in Miyagawa's analysis *ka* must be licensed by a higher structure. In matrix contexts the licensing requires the Speech Act Layer – or, in the terminology adopted here, the Grounding Layer – to be projected and therefore an element requiring its presence; in embedded contexts the licensing requirement is satisfied by the presence of an embedding bridge verb.

However, the relation between politeness marking and *ka* is not as uniform as Miyagawa's discussion suggests. First, the pattern would seem to hold only with respect to verbal predicates. Miyagawa omits any mention of non-verbal predicates, but Yokoyama (2013) notes that ordinary *ka*-marked questions without verbal predicates are grammatical even in the absence of a politeness marker:

(6) Sono ringo wa oishii ka?
that apple TOP tasty Q
"Is the apple tasty?"

(from *ibid*.:13)

Here, the predicate is the adjective *oishii* 'tasty' in its plain form without a politeness marker,[66] but the question marker *ka* is nevertheless grammatical.

[66] The plain form *oishii* contrasts with the polite form *oishii desu* where *desu* is the copula. It should be noted that (6) is distinct from the ellipsis of the copula in English examples such as 'That apple tasty?' – the plain form is used in a variety of grammatical constructions where verbal predicates occur in their

Second, Yokoyama argues that the politeness marker can be omitted when there is an overt second person element present in the sentence. However, this does not hold absolutely, as some speakers still find examples such as (7) ungrammatical, where the verb is in its plain form and there is an overt second person pronoun, the casual *omae*:

(7) ?? Omae wa nani o taberu ka?
you TOP what ACC eat Q
"What are you going to eat?"

Yokoyama does not offer even tentative solutions to these problems, and I will leave them as questions for further research as well. Instead, the focus here will be on a more fundamental issue, relating to distinctions between different types of *ka*-marked questions and how they relate to the layers above CP.

Miyagawa's data are restricted to *ka* in information-seeking questions, and broadening the scope to other types of questions reveals a more complex picture. Yokoyama (2013) distinguishes between two classes of questions – and two types of *ka* – in Japanese: non-assertive and assertive. The former category consists of questions that ask for information – so-called ordinary questions – such as those discussed by Miyagawa. Assertive questions, on the other hand, do not ask for information: into this category fall rhetorical and conjectural questions, *wh*-exclamatives, self-addressed confirmatives, resistives, polar imperatives and embedded questions. Crucially, none of these question types require politeness marking for *ka* to occur in a matrix clause. I will illustrate these question types below.

Rhetorical questions are questions in syntactic terms but statements in terms of function. Their answer is either self-evident or expected to be known to the addressee:

(8) Konna tokoro ni dare ga kuru ka?
like.this place to who NOM come Q
"Who would come to a place like this?" (= "Nobody would come.")
(from *ibid*.:2)

---

plain, *-mas*-less form; as such, *oishii* is parallel to the non-politeness marked forms of verbs discussed by Miyagawa.

As for the syntactic properties of rhetorical questions, Oguro (2015) argues that they incorporate the element *mono* that can be either null or overt.[67] A full rhetorical question is illustrated in (9):

(9) Dare ga kuru mono ka.
who NOM come MOD Q
"Who will come?" (Implied meaning: "No one will come!")
(adapted from *ibid*.:93)

When the modal element *mono* is null, the question need not be interpreted as a rhetorical question; however, when it is overt, only the rhetorical interpretation is available.

As for the nature of *mono*, it has several functions: for example, it can be interpreted akin to English *should* (Tamaji, 2007 cited in Oguro, 2014:9ff.), but it also has an exclamatory use, as in (10):

(10) John mo tosi o totta mono da!
John also age ACC took MOD COP
"John got old!"
(adapted from Oguro, 2015:94)

The modal functions here to show the speaker's surprise or sadness at John getting old. According to Oguro (2015), this shows that *mono* carries a point of view (POV) feature, valued by the speaker in the Speech Act Layer. As such, Oguro's take on *mono* raises the possibility of analyzing it as an instance of a low POV element, located in the vP domain, and mirroring analyses such as Alcázar and Saltarelli (2014), where speech act participants are encoded at the vP edge. However, this

[67] Oguro (2015) dubs *mono* a modal, but it is unclear whether it can actually be seen as one syntactically. See below for discussion on the function and syntactic properties of *mono*.

option is complicated by the association of *mono* with a negative feature, as discussed below.[68]

Oguro (2015) notes that rhetorical questions differ from other question types in allowing negative polarity items, such as *daremo* 'anyone'. Oguro (2014) argues that this is because *mono* in rhetorical questions occupies Fin, where it is associated with a [+Neg] feature. This placement of negation is higher than in regular declaratives, where it is below the subject position. Evidence for the contrast comes from observations regarding scope:

(11) a. John dake ga ko-nai. (only>NEG, *NEG>only)
John only NOM come-NEG
"Only John will not come."

b. John dake ga kuru mono ka! (*only>NEG, NEG>only)
John only NOM come not Q
"Only John will not come!"

(from *ibid*.:7)

In the declarative (11a), the subject *dake*-phrase ('only') takes scope over negation, while in the rhetorical question in (11b) the scope pattern is reversed. Hence, negation in rhetorical questions has to be located higher than TP. That negation is in Fin rather than the higher Force projection can be shown based on evidence from sentence-initial topics. Oguro takes clause-initial *wa*-topics to be in a TP-external TopP projection, in line with Tomioka (2009), as mentioned in the previous chapter (section 4.2.3.1). If the *dake*-subject in (11b) is topicalized, it takes scope over negation:

(12) John dake wa kuru mono ka! (only>NEG, *NEG>only)
John only TOP come not Q
"Only John will not come!"

(from *ibid*.:9)

[68] Oguro does not elaborate on the other functions of *mono*, such as its *should*-like meaning, in terms of structure; this has no bearing on the discussion here, though, so I just note the question as open for future research.

If the negation was in Force, it would take scope over the *dake*-marked topic; as it does not, and as it is outside TP as shown in (11), it must be located in Fin.

As a potential caveat to this analysis, it should be noted that cross-linguistically the negation occurring in negative rhetorical questions, as well as negative exclamatives, tends to differ from its standard counterpart in several ways (Delfitto and Fiorin, 2014): crucially to the discussion here, it does not tend to license negative polarity items. Rather, according to Delfitto and Fiorin, the function of negation in negative exclamatives and negative rhetorical questions is to promote the opposite polarity. Following Krifka (1990, 1992, 1995 cited in *ibid*.:286), the authors assume that negative polarity items are licensed in a question when they reduce its bias by making the truth conditions of the negative answer stronger; hence, negative polarity items are allowed in questions only when there is a bias towards the negative answer. As the negation in exclamatives and rhetorical questions promotes the positive answer, it follows that negative polarity items will not be allowed in these contexts. Obviously, this is not the case in Oguro's analysis of Japanese rhetorical questions. However, it is unclear how the scope data could be accounted for without a negative element in the structure, so I will assume Oguro's approach here.

The inherently negative nature of rhetorical questions is, according to Oguro (2014, 2015), also reflected in the nature of *ka*, so that rhetorical *ka* is in fact separate from *ka* in other cases. Rhetorical *ka* has a negative feature, which must be phonetically detectable. It follows from this that *ka* cannot be dropped in rhetorical questions, as it can in ordinary questions. This mirrors the idea of multifunctionality in East Asian languages, where two elements have related but distinct functions. Duffield (2017), for example, discusses this with respect to Vietnamese, arguing that the meaning of its non-affixal grammatical particles is largely determined by their clausal distribution or their relationship to other grammatical morphemes. Oguro does not discuss the origins of the negative feature on *ka*, but as such, the analysis is conceptually akin to Wiltschko and Heim's (2016) USH, where a lexical item's position is determined by how it combines with the syntactic spine. Here, Oguro's rhetorical *ka* could be the spellout of a negative polarity head (Holmberg, 2015). However, taking even *ka* to reflect a possible negative feature in rhetorical questions is not the approach I will pursue here: rather, I follow Caponigro and Sprouse (2007) in assuming that

rhetorical and information-seeking questions differ in their pragmatics and how they relate to the speaker and the addressee, instead of postulating homonymous *ka*s that differ in terms of a negative feature. I return to the proposal in the following section.

In conjectural questions, the speaker neither knows the answer nor expects the addressee to know it:

(13) Dare ga tugi no daitooryoo ni naru ka naa.
who NOM next GEN president DAT become Q *naa*
"I wonder who is going to be the next president."
(from Yokoyama, 2013.:3)

Conjectural questions in Japanese occur with elements such as *naa* here, which moderate the illocutionary force of the preceding sentence. *Naa* is related to the particle *na* discussed in detail in chapter 3, and expresses the speaker's emotion or wishful thinking.

Wh-exclamatives in Japanese are typically marked by a nominalizer and the speculative modal *(r)oo*. They express strong feelings, emphasis or emotion. This is illustrated in (14):

(14) Nanto subarashii ronbun na n da-roo ka.
how excellent thesis *na* COMP COP-MOD Q
"What an excellent paper!"
(from *ibid*.:4)

Self-addressed confirmatives are directed to the speaker themself and are used to digest newly-reported information:

(15) Aruzenchinzin no shikyoo ga roomahoo.oo ni natta ka
Argentine GEN bishop NOM Pope DAT became Q
"Oh, the Argentine bishop became the Pope."
(from *ibid*.:4)

Resistives are marked with *ka* and express the speaker's resistance, refusal, or rejection:

(16) Anna hito to kekkonsuru mono desu ka.
like.that person with marry thing COP Q
"I will not marry that kind of person."

(from *ibid*.:4)

Polar imperatives are *ka*-marked negative sentences that are used as a positive command:[69]

(17) Hayaku yara-nai ka.
right.away do-NEG Q
"Do it right away."

(from *ibid*.:5)

Yokoyama summarizes the relevant properties of the question types in the table below:

[69] Both resistives and polar imperatives show negative-related uses that can be taken as cases of expletive negation. This is typically assumed to occupy a position higher in the structure than standard negation, pointing to parallels and supporting Oguro's analysis of rhetorical questions (cf. i.a. Abels (2002) and Espinal (2007)). As noted above, though, the discussion here is concerned with the structure facing out into the context rather than lower aspects of structure, and I therefore will not go further into the exact formal analysis of different question types here.

	S knows the answer	S believes A knows the answer	Discourse participant(s)	Response required?
Ordinary questions	No (Yes)	Yes	S, A	Yes
Rhetorical questions	Yes	Yes	S, A	No
Conjectural questions	No	No	S, (A)	No
Wh-exclamatives	n/a (yes?)	n/a	S, (A)	No
Self-addressed confirmatives	n/a (yes?)	n/a	S	No
Resistives	n/a (yes?)	n/a	S, A	No
Polar imperatives	n/a	n/a	S, A	No
Embedded questions	depends on the information in the matrix clause	??	S, A	No

Table 7. Properties of *ka*-marked questions (Yokoyama, 2013:6)

What emerges as the relevant distinction between question types that require politeness marking for *ka* to occur, i.e. ordinary questions, and those that do not, is that the former require a response while the latter do not – hence the categories of non-assertive and assertive questions.

Yokoyama takes this distinction to be reflected also in the properties of the question marker, postulating two *ka* morphemes. Non-assertive *ka* appears in ordinary questions, it must be licensed by Hearer in the Speech Act Phrase – assuming Haegeman and Hill's (2013) model – and it is realized with rising intonation. Assertive *ka* appears with assertive questions: it is realized with falling intonation,

and does not require licensing, which explains why it does not require politeness marking.

There is cross-linguistic support for distinguishing two types of *ka*. Korean, for example, has special markers for self-addressed questions (Jang, 1999 cited in *ibid*.:11):

(18) a. Mary-ka o-ass ni?
Mary-NOM come-PST Q
"Has Mary come?"

b. Mary-ka o-ass na?
Mary-NOM come-PST Q
"I wonder whether Mary has come."

(from *ibid*.:11)

Here, (18a) is an ordinary question, marked with *ni*, while (18b), marked with *na*, is an affirmative one, in that it does not require a response from the addressee. Even if the categories may not correspond exactly to the ones in Japanese, the Korean data serve to show that the type of response required by the question can be syntactically relevant and reflected in the properties of the question marker.

What the different licensing requirements of the two types of *ka* actually translate into is not as straightforward as the preceding discussion suggests. The idea that assertive *ka* need not be licensed seems to imply in Miyagawa's and Yokoyama's analyses that assertive questions simply need not project a Speech Act Layer; and the idea that non-assertive *ka* requires politeness marking implies that the presence of the Speech Act Layer must have some kind of a trigger in the syntax. This is, however, counterintuitive considering both the empirical data and the intended nature of the layer.

First, as is evident from Table 7, all of the question types show involvement of either both the speaker and addressee or just the speaker. For Miyagawa's analysis to hold, the speaker and addressee would have to be present conceptually speaking in all these

cases, but actually projecting the Speech Act Layer would require a formal trigger, such as politeness marking, thus allowing non-assertive *ka* to be licensed. This is very much at odds with the idea of the Speech Act Layer assumed in much of the literature. Sigurðsson (2011, 2013), for example, assumes that speech act features are available irrespective of whether there is anything in the sentence that would trigger their presence.

Second, why the politeness marker should project a Speech Act Layer above CP is not clear given more recent work on discourse-related projections lower down in the structure. Alcázar and Saltarelli (2014) – as mentioned above and in chapter 2 – for example, argue based on evidence from imperatives for a Light Performative Hypothesis, where speaker and addressee arguments are represented in the vP. The hypothesis that the politeness marker *-mas-* is related to such a lower structure is supported by its position relative to other markers on the verb. It is dominated by Tense, as is apparent from (19):

(19) Takeshi wa watashi no keeki o tabe-mas-ita.
Takeshi TOP I GEN cake ACC eat-POL-PST
"Takeshi ate my cake."

Here, *-mas-* appears between the verb stem *tabe-* and the past tense marker *-ta*. Hence, that the politeness marker projects the higher Speech Act Layer is further put into doubt by the greater plausibility of a lower Speech Act Layer.

Furthermore, there is also empirical evidence that in many of the question types in Yokoyama's typology there is in fact an element that can be taken to relate to the Speech Act Layer formally: this means that the layer is present even in assertive questions, just as with non-assertive *ka*.

First, it was seen above that rhetorical questions, according to Oguro (2015), always include the element *mono*, which carries a point of view feature related to the speaker. This means that even on Miyagawa's understanding of the Speech Act Layer having to be triggered, it is present in these cases as well.

Also conjectural questions typically involve a modal element:

(20) Dare ga kuru no daroo ka?
who NOM come FIN MOD Q
"I wonder who will come."

(from Oguro, 2015.:95)

Here, the epistemic modal *daroo* appears, expressing surmise, (Oguro, 2016).[70] Oguro (2015) assumes that just like *mono* in rhetorical questions, *daroo* also involves a POV feature, the value of which is determined by the speaker in the Speech Act Layer. This finds cross-linguistic support from Littell, Matthewson and Peterson's (2010 cited in Oguro, 2016:32) observation that in languages with evidential morphemes, these morphemes express evidential assertion in declaratives, and statements of uncertainty in questions. The modals here would seem to function in a similar way. Importantly to the point here, what is crucial is that the Speech Act Layer can be motivated in conjectural questions as well, contra the idea that it need not be projected in contexts where assertive *ka* appears.

Further evidence for the Speech Act Layer in conjectural questions comes from the option of having politeness marking, hence a hearer projection (Oguro, 2016). Consider (21):

(21) Dare ga kuru desyoo ka?
who NOM come MOD.POL Q
"I wonder who will come."
"Who will come? What do you think?"

(from *ibid*.:87)

Here, *desyoo* is the polite version of the modal *daroo*. The question can be interpreted as an information-seeking question, as shown by the latter interpretation. However, interpreted as a conjectural question, the politeness marker indicates that the question

[70] *Daroo* is located above Tense and below Force (Minami, 1993 in Davis 2011:16); it can be argued to occupy an epistemic head, but I will not commit to an analysis of how articulated the structure below Force is here.

is addressed to an addressee, but the speaker only expresses their own ignorance to the addressee and does not intend to get an answer.

In rhetorical and conjectural questions, the modal element relates to the speaker, but this is not the case in all question types. Oguro (2015) discusses so-called quizmaster questions, where the speaker knows the answer and requires a response from the addressee without necessarily assuming that the addressee knows the answer. These questions can take two forms, as illustrated in (22):

(22) a. Dare ga Hamlet o kaki-mas-ita ka?
who NOM Hamlet ACC write-POL-PST Q
"Who wrote Hamlet?"

b. Dare ga Hamlet o kaita no desyoo ka?
who NOM Hamlet ACC wrote FIN POL.MOD Q
"Who wrote Hamlet?"

(from *ibid*.:97)

Syntactically, (22a) resembles an ordinary question, but it is uttered with a falling intonation. In (22b), the polite modal *desyoo* appears. If it is omitted, (22b) can only be interpreted as an ordinary question. Kuwabara (2013) takes this to be the case because the presupposition that the answer is already known to the addressee is cancelled if the question involves *desyoo*. In contrast to the conjectural questions discussed above, then, here the modal reflects the viewpoint of the addressee.

Given the presence and activation of the Speech Act Layer across question types, Oguro accounts for their differences in terms of Tenny's (2006) interrogative flip – in contrast to Wiltschko and Heim's (2016) framework adopted here – as introduced in chapters 2 and 3. In a conjectural question in soliloquy, there is no external hearer argument available – i.e. other than the speaker themself – and the speaker dominates the CP. In a polite conjectural question, on the other hand, the hearer argument is added below the CP. This gives the following structures as compared to declaratives and information-seeking interrogatives, where '>' signifies a dominance relation:

(23)

Declarative:	Speaker > CP > Hearer
Interrogative:	Speaker > Hearer > CP
Conjectural question:	Speaker > CP
Polite conjectural question:	Speaker > CP > Hearer

Hence, polite conjectural questions have the same ordering of arguments in the Speech Act and CP layers as declaratives.[71]

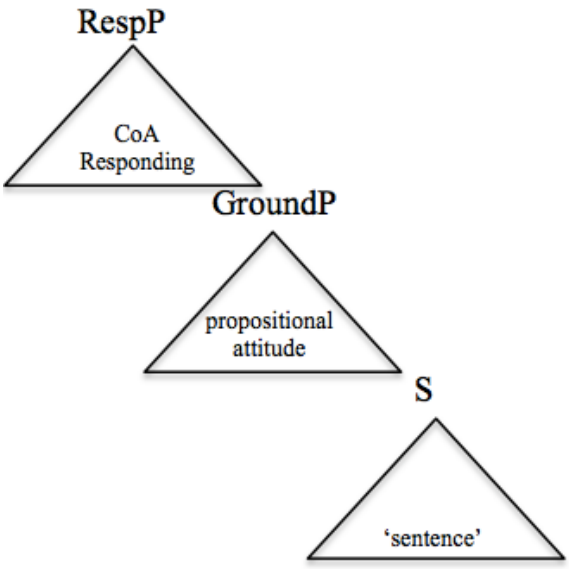
However, this way of analyzing the distinctions between question types does not wholly capture Yokoyama's insight: that the crucial difference between questions is not just what speaker- and addressee-related elements they project, but what the speaker requires the addressee to do, i.e. whether or not they require a response. This is where Speas and Tenny's (2003) and Tenny's (2006) analysis with a single Speech Act Layer and an interrogative flip falls short of capturing the data in a satisfactory way. In the following, I introduce an approach that allows this intuition to be encoded syntactically.

5.2.1 Responding to a need for structure: Wiltschko and Heim's (2016) Response Layer

That the speaker's requirement for the addressee to respond in some way is a relevant notion for syntax is argued for in Wiltschko and Heim's (2016) work within their USH. Crucially, as introduced in chapter 2, above the Grounding Layer – hosting positions for speaker and addressee arguments and hence corresponding to the Speech Act Layer in Miyagawa's (2012), Yokoyama's (2013) and Oguro's (2014, 2015) analyses above – there is a Response Layer. The higher portion of the syntactic spine is illustrated in (24), a simplified version of the structure (58) in chapter 2:

[71] Also Alcázar and Saltarelli's (2014) analysis of imperatives shows a similar structure.

(24)



(from *ibid*.:16)

To analyze dialogue, Wiltschko and Heim adopt Farkas and Bruce's (2009 cited in *ibid*.:17) notion of 'table', i.e. an imaginary space in the dialogical field on which proposed additions to the common ground are placed. Conversational moves crucially do two things: they put a proposition on the table as well as ask the addressee to do something with it. The latter aspect is the so-called Call on Addressee (Beyssade and Marandin, 2006 cited in *ibid*.:18).

The analysis is based on observations on the Canadian confirmational *eh*. The function of *eh* is twofold: it associates with the Grounding Layer, where the speaker's propositional attitude is encoded, as well as with the Response Layer, where the Call on Addressee is encoded. The dual function is further reflected in the fine-grained structure of *eh*. The lexical form associates with the Grounding Layer, while its rising intonation associates with the Response Layer. *Eh* can be used to request confirmation for the truth of the proposition expressed, or to confirm the speaker's assumption that the addressee knows that the proposition is true. Consider (25):

(25) a. John knows that Mary would like to have a new dog. He hasn't seen her in a long time, and keeps wondering whether she has got a new dog. One day, he runs into her while she is walking a new puppy. John utters:
You have a new dog, eh?

b. Mary is walking her new dog when she runs into John. She is expecting that he would congratulate her on the new dog, but he is not mentioning it. She isn't sure anymore whether he actually realizes that she has a new dog, uttering:
I have a new dog, eh?

(from *ibid*.:4)

In (25a), John is requesting Mary to confirm that the proposition that she has a new dog is true. In (25b), on the other hand, Mary is requesting John to confirm that he knows that the proposition that she has a new dog is true. Crucially, the Call on Addressee, i.e. the request for a response, remains the same. The difference in what is asked to be confirmed is encoded in the Grounding Layer.

Further evidence for the idea that it is precisely the intonational aspect of *eh* that is encoded in the Response Layer comes from so-called narrative *eh*. The lexical part remains the same, but the intonation is falling. This *eh* merely indicates that the speaker assumes that the proposition expressed is in the common ground after the utterance, and does not require a response.

The basic idea of a distinction between two types of *ka* translates straightforwardly to the Response Layer framework. Essentially, non-assertive *ka* encodes a Call on Addressee requiring a response, while assertive *ka* does not. Hence, the Call on Addresee in non-information-seeking questions would be more akin to that in declaratives. This is in line with Caponigro and Sprouse's (2007) view of rhetorical questions, according to which they are interrogatives that are semantically the same as ordinary, or information-seeking questions: where the two types of interrogatives differ is that for rhetorical questions both the speaker and addressee know the answer, while for information-seeking questions the speaker does not, and the addressee may or may not, know the answer. In other words, what matters is the speaker's and addressee's knowledge and beliefs with respect to the question under discussion.

This basic analysis of the two *ka*s can be further elaborated, though. First, with *eh* it is actually the rising intonation of the particle that encodes the Call on Addressee rather than its lexical form. Given the homophony of the two *ka*s, it is worth considering

whether something similar may be the case in Japanese as well. That the role of intonation may be relevant here is supported by the observation that *ka*-less information-seeking questions can be realized with rising intonation alone. Furthermore, as Yokoyama notes, assertive *ka* is realized with falling intonation. As such, the lexical element *ka* could initially occupy the Force projection (Minami, 1993 cited in Davis, 2011:16; Saito and Haraguchi, 2012), and then gain the distinct prosodic and interpretational properties in the Grounding and Response layers.

A potential problem for this approach arises from quizmaster questions: they are similar to information-seeking questions in that they require politeness marking (Oguro, personal communication)[72] and call for a response. However, they are realized with falling intonation. If the rising intonation of non-assertive *ka* is what is encoded in the Response Layer, this pattern will have to be accounted for. However, there is cross-linguistic evidence suggesting that quizmaster questions in fact form a separate category. Bobaljik and Wurmbrand (2015) take quizmaster questions (their "quiz-show questions") to be an example of a category of questions with declarative syntax (DSQs). These are syntactically declarative CPs or TPs: they have no question operator or interrogative C, and therefore show no wh-movement nor can they be selected as indirect question complements. The wh-phrase in quizmaster questions occupies a focus position, and their interpretation as questions is consequently based on pragmatics, rather than syntactic features.[73] Kotek (2016), in turn, notes that quizmaster questions in English require the wh-word to remain situ, being contained in TP or vP, and often require unique intonation as well. They also allow only single-pair, and not pair-list, answers, in contrast to standard information-seeking questions with two wh-phrases. Hence, quizmaster questions would seem to fall into a separate

[72] Oguro (personal communication) notes that in this case, it might be the social context rather than the syntax itself that requires the politeness marking to occur as "it is difficult to imagine a Japanese quizmaster being casual enough to ask a question without politeness marking. Maybe it's a matter of pragmatics, not syntax." However, resorting to a solution like this as a default is not sufficient in the context of syntactisization of discourse.

[73] *All* wh-phrases can be taken to occupy a focus position, but Bobaljik and Wurmbrand do not, at least explicitly, assume this for wh-phrases in standard interrogatives. The main point of the analysis, however, is not dependent on this: rather, quizmaster questions are argued to differ from standard interrogatives as their wh-phrases are syntactically independent of a(n interrogative) C head.

category from standard information-seeking questions and therefore their different intonational properties in Japanese are not unexpected, either. In sum, then, they do not pose a challenge to the suggestion that it is rising intonation that encodes the request for a response in the Response Layer. I will return to the compositional structure of these types of questions in the discussion below.

Analyzing assertive and non-assertive *ka* as composites of the lexical form and intonation allows one to differentiate between assertive and non-assertive questions. However, as is apparent from the discussion above, these major types can be further split up into different categories. Heim and Wiltschko (2017) elaborate the theoretical apparatus available in the Grounding and Response Layers to encode different types of utterances. First, the Grounding Layer relates to the propositional structure it dominates through a coincidence feature, [±coin], encoding whether or not the speaker believes the proposition uttered. [+coin] indicates that believing p coincides with the speaker's or addressee's set of beliefs, while [-coin] indicates that it does not. There is also a third option, namely that the speaker is partially committed to the proposition. Heim and Wiltschko encode this by drawing on differences in the higher argument of GroundP in cases where the coincidence feature is valued as positive. Essentially, if the argument is deictic, the commitment is full, and if it is generic, the commitment is partial. These options are summarized in (26):

(26)

Valuation	Nature	Commitment
[+coin]	deictic	full
[+coin]	generic	partial
[-coin]	deictic	none

(from *ibid*.:13)

The same features are replicated for the Response Layer: here, the coincidence feature encodes the relation between RespP and GroundP. If the two phrases coincide, encoded as [+coin], the speaker calls on the addressee to engage with the proposition; if they do not, i.e. [-coin], there is no call on the addressee. As with GroundP, there is

also an option to modify the call. When either the speaker or hearer can follow up on the call, the call is generic. This is encoded as making the higher argument in RespP generic, in contrast to being specifically the addressee, or deictic. The options are summarized in (27):

(27) **RespP**

Valuation	Nature	Engagement
[+coin]	deictic	full
[+coin]	generic	partial
[-coin]	deictic	none

(from *ibid*.:14)

Given the different options based on the value of the coincidence feature and whether the higher argument is deictic or generic, the model can encode the functions of different types of utterances. Below, I will illustrate this with respect to the Japanese question types discussed above.

First, information-seeking questions have [-coin] in GroundP, as there is no commitment on the part of the speaker to the proposition. RespP is marked by [+coin], and the higher argument is deictic, as the speaker calls on the addressee to respond to the question. The latter function is marked by rising intonation, whether this be on a *ka*- or *no*-marked sentence or a syntactically declarative sentence.

In rhetorical questions, the speaker is committed to the proposition – in this sense rhetorical questions are akin to declaratives – so the coincidence feature is valued as [+coin] and the higher argument is deictic. The addressee is not expected to know the answer and engage with the question, so that RespP is marked by [-coin].

Conjectural questions differ from rhetorical ones in that the speaker does not know the answer, and hence shows no commitment to the proposition. This gives [-coin]. As in rhetorical questions, and differing from information-seeking ones, the addressee is not expected to respond, meaning that RespP also has [-coin].

In wh-exclamatives, the speaker is committed to the proposition – emphatically so –, giving [+coin] and a deictic higher argument in GroundP. As no response is required, RespP is marked with [-coin]. As such, wh-exclamatives are represented in the same way as rhetorical questions; this is not surprising given that in both cases the speaker expresses a proposition that is in their set of beliefs in a marked way. The observation tallies with the discussion of Finnish *-pA* attached to wh-words in section 3.3.2 in chapter 3, where it was noted that the resulting interpretation is that of a wh-exclamative or a rhetorical question. Furthermore, work like Delfitto and Fiorin's (2014) analysis of negation in negative exclamatives and rhetorical questions, discussed above, treats the two as largely parallel.

In self-addressed confirmatives, the speaker is again committed to the proposition, making GroundP [+coin]. However, here the commitment could be either full or partial, so that the higher argument could be either deictic or generic. Again, RespP is marked by [-coin].

In resistives, GroundP is marked by [+coin] and the higher argument is deictic, as the speaker is arguably wholly committed to the proposition. RespP is again [-coin].

In polar imperatives, GroundP is [+coin] and the higher argument is deictic, as the speaker is wholly committed to the proposition. The case of RespP is less clear, however. The speaker is clearly requiring the addressee to take action by uttering the imperative; yet, it is not clear from Heim and Wiltschko's analysis whether this kind of response should be equally encoded as [+coin] and deictic as the requested response is in information-seeking questions. More generally, the same question holds with respect to declaratives: here, the authors assume that RespP has [-coin] as no response is required from the addressee. However, the addressee is required to adopt the proposition as part of their set of beliefs, so arguably this could be a type of response as well. I will leave the issue open what kinds of responses a [+coin] feature in RespP actually encompasses.

Finally, returning to quizmaster questions, these have [-coin] in GroundP, as there is no commitment on the part of the speaker to the proposition, just as in information-seeking questions. RespP is marked by [+coin], and the higher argument is generic, as

these are stylized questions that could, in principle, be asked of anyone; this is where they differ from information-seeking questions, allowing for the difference in intonation.

What the above discussion serves to show is how the two layers, GroundP and RespP, can conspire to produce a range of interpretations through a limited set of features. Table 8 is a summary of the discussion above:

ka-construction	RespP			GroundP		
	Value	Interpretation	Call	Value	Interpretation	Commitment
Information-seeking questions	[+coin]	deictic	addressee	[-coin]	generic	none
Rhetorical questions	[-coin]	deictic	nobody	[+coin]	deictic	full
Conjectural questions	[-coin]	deictic	nobody	[-coin]	deictic	none
Wh-exclamatives	[-coin]	deictic	nobody	[+coin]	deictic	full
Self-addressed confirmatives	[-coin]	deictic	nobody	[+coin]	deictic/ generic	full/ partial
Resistives	[-coin]	deictic	nobody	[+coin]	deictic	full
Polar imperatives	?	?	?	[+coin]	deictic	full
Quizmaster questions	[+coin]	generic	anybody	[-coin]	generic	none

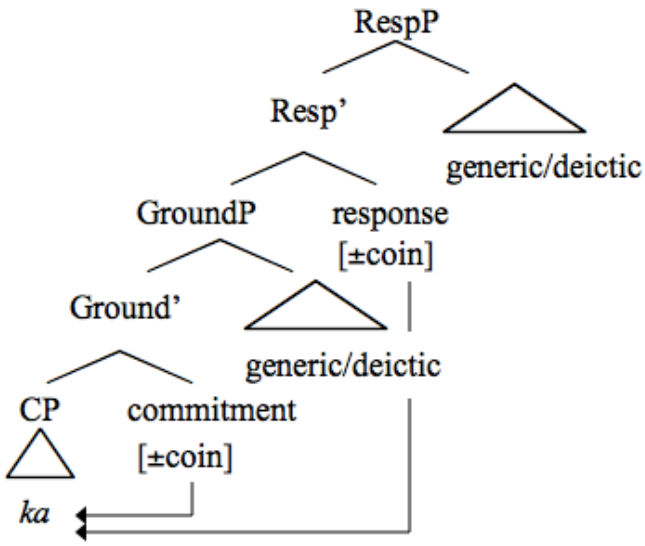
Table 8. The representation of *ka*-sentences in GroundP and RespP

Note that there is a gap in the [±coin] specifications: there is no example where the feature is valued [+coin] in both the Grounding and Response layers. This is not an option that is ruled out on principled grounds, however. Rather, it corresponds to Heim and Wiltschko's (2017) rising declaratives and continuation rises. Both are declaratives expressing a degree of uncertainty and are marked by rising intonation; the rise is greater for the former than for the latter. In both cases, the speaker is partially committed to the proposition expressed (hence the feature value [+coin] and

a generic argument in the Grounding Layer), and calls on the addressee to engage with the proposition (hence [+coin] in the Response Layer). Where the two differ is that in rising declaratives it is the addressee that is asked to respond – represented by a deictic argument in the Response Layer –, while continuation rises are marked by a generic argument in the Response Layer, as either the speaker or addressee can take up the next turn.

Returning to the data in Table 8, the emerging analysis of the Japanese right periphery can be schematized structurally as in (28):

(28)



Here, *ka* occupies a position in the C domain; more specifically, following Saito and Haraguchi (2012) and as noted in the discussion above, it is located in ForceP. From this position, it is associated through an Agree relation with different configurations in the Grounding and Response layers, both of which carry a [±coin] feature in the head position and a generic or deictic higher argument. Furthermore, the [+coin] feature in the Response Layer is associated with rising intonation. By manipulating the value of the [±coin] feature and the nature of the higher argument in the Grounding and Response layers, the configurations illustrated in Table 8 – hence, the different types of questions – can be represented in the right periphery. It should be noted that for purposes of presentational clarity, the Grounding Layer is here represented simply as GroundP instead of the more articulated addressee- and speaker-related GroundAP and GroundSP, respectively, argued for in the previous chapters. This is also the tack adopted by Heim and Wiltschko, who do not elaborate on where in the more

articulated Grounding Layer the [±coin] feature and the higher argument are. However, given that the configuration represents the speaker's belief about the proposition, I take them to be associated with GroundSP rather than GroundAP.

Now, given that the different commitments and Calls on Addressee are captured by the different configurations of (28), there is no need to postulate multiple homonymous *ka*-markers; rather, following the USH, *ka* as a unit of language is lexically underspecified. The question that arises is then what this underspecified meaning of *ka* is. Clearly, *ka* cannot be defined by its Call on Addressee, as this has been shown to vary according to configurations in the higher Grounding and Response layers. Instead, I propose that the meaning *ka* carries is related to disjunction. The association between questions and disjunction is a long-standing one in semantics. For instance, Hamblin (1973) takes the denotation of a question to be the set of possible answers to it, Karttunen (1977) argues that it is the set of true answers, and Higginbotham and May (1981) view questions as denoting a partition of the possible states of things; crucially, all of these approaches invoke disjunction. What is more, cross-linguistically there is a tendency for question particles to show a relation to disjunction (Jayaseelan, 2008). This is the case in Japanese as well, where disjunction is marked by the homonymous *ka*:

(29) John ka Bill (ka) ga hon o katta.
John or Bill or NOM book ACC bought
"John or Bill bought books."
(from Kuroda, 1965 cited in *ibid*.:5)

Hence, I take the question marker *ka* to carry a disjunctive function as its underspecified meaning, and its more specific uses to be derived from its association with different configurations in the Grounding and Response Layers.

In conclusion, the above discussion has shed light on different types of *ka*-marked questions in Japanese. I have argued against Miyagawa's (2012) analysis of *ka* requiring licensing by the politeness marker on both conceptual and empirical grounds, as well as suggested that a Response Layer is necessary to account for the differences between question types in Japanese. As such, the above makes a clear case

for a USH-based approach to speech act-related syntax over the approach proposed by Speas and Tenny (2003) and Tenny (2006), where there is no structure corresponding to the Response Layer, and questions are distinguished from declaratives through the interrogative flip. Importantly, the interrogative flip cannot account for the existence of different types of questions, differentiated by their Calls on Addressee; the above discussion corroborates Heim and Wiltschko's (2017) argument based on Canadian *eh* showing that the Call on Addressee is a syntactically real notion, and should be thus structurally represented.

However, the discussion leaves some questions unanswered. First, Miyagawa's observation still holds in a weaker sense in that non-assertive *ka* does seem to require the overt presence of an addressee-related element, such as verbal politeness marking or a second person pronoun. Why adjectival predicates do not require politeness marking when they appear in non-assertive *ka*-questions is a related problem. This requires a more elaborated analysis of how politeness is represented in the syntax, and what the exact composition of a possible lower speech act-related layer is. Finally, as appears from Table 8, the feature specifications of the Grounding and Response Layers cannot alone account for all the interpretational differences between the *ka*-marked structures discussed here. For example, drawing further distinctions between resistives, rhetorical questions, and wh-exclamatives requires more to be said about their pragmatics. It is not clear, though, that this should be the task of the Grounding and Response Layers, or indeed discourse syntax more generally; as was noted above, rhetorical questions and wh-exclamatives share many syntactic similarities with respect to negation, for example, and as such their differences should not be overstated. Perhaps, then, the differences are better captured by general pragmatic processes that are not syntactically encoded. These Japanese question types are by no means the only case for which their categorical distinctions are not clear-cut and a general pragmatic option arises. To show that not everything should be accounted for in syntactic terms and that there must be room for gradience, I now turn to the Finnish discourse particles.

5.3 Questions posed by Finnish particles

The Japanese question types give the impression that variations in the Response Layer correlate relatively neatly with certain markers: in this case, the need for politeness marking and rising versus falling intonation on the question marker *ka*. However – as is expected from discourse-related notions in general, and is suggested by the overlapping features of rhetorical questions, wh-exclamatives, and resistives, for example – it is not always clear-cut how certain elements interact with the Response Layer, and in practice, the interaction is more gradient than black and white.
This effect is illustrated particularly well by the Finnish particles *-hAn* and *-pA* when they attach to wh-phrases.

Bayer and Obenauer (2011:470) argue based on observations on German that "discourse particles make an essential semantic contribution to the interpretation of wh-questions as special questions."[74] As was noted above in chapter 3, *-hAn* and *-pA* in Finnish can occur in questions with repercussions to what they require of the addressee.

First, consider *-hAn* in (30) (repeated from section 3.2.2 in chapter 3):

(30) Mikä-**hän** Villen vaalikampanjan pääteesi on?
what-*hAn* Ville-GEN election campaign-GEN main thesis is
"What is the main thesis of Ville's election campaign (I wonder)?"
"I would like to know/ could you tell me what the main thesis of Ville's election campaign is."

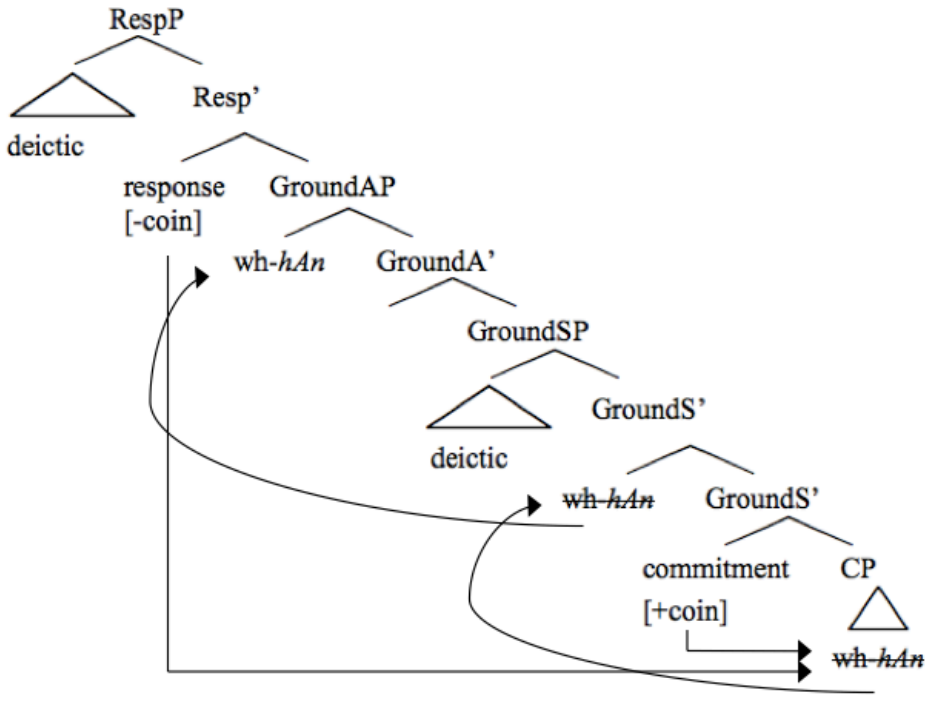
According to Huhmarniemi (2012), *-hAn* attached to a wh-phrase changes the interpretation of the sentence from an interrogative to a rhetorical question or request. In (30), the first interpretation corresponds to a rhetorical question (or a conjectural one; I will focus on the former here), and does not require an answer. However, in the latter case – what Huhmarniemi takes to be a 'request' – it is unclear what the

[74] Here the term 'special questions' refers broadly to anything that is not an ordinary information-seeking question.

difference between this interpretation and an information-seeking question is meant to be: crucially, the translation given by Huhmarniemi reads as an information-seeking question, the function of which is spelled out.

Labels aside, though, the rhetorical interpretation and the conjectural sense of 'I wonder' are much more salient than the one where a response is required. This suggests that *-hAn* may also be associated with the Response Layer, at least in interrogatives. There, it deletes the Call on Addressee, by changing the [+coin] feature of an information-seeking question into the [-coin] feature of a rhetorical question. In GroundP, the [-coin] feature changes to [+coin], as rhetorical questions require the speaker to be committed to the proposition they make. The structure (31) schematizes *-hAn* in a rhetorical question:

(31)



Here, the wh-element carrying *-hAn* starts off lower down in the structure in the base position of the wh-element, as argued in chapter 3. From there, it moves to GroundAP, stopping in GroundSP on the way, given that addressee orientation is always mediated through the speaker (Thoma, 2014); the movement is triggered by addressee and speaker features, as outlined in chapter 3. As in the Japanese structure in (28), it is associated with a [-coin] feature in the Response Layer and a [+coin] feature in the Grounding Layer, or more specifically, GroundSP, as argued above.

Furthermore, the higher argument in the Response and Grounding layers are deictic, to capture the nature of rhetorical questions in accordance with Wiltschko and Heim's (2016) framework. Now, whether the *-hAn* carrying wh-element moves to the Response Layer or comes to be associated with it through Agree cannot be determined. Given that the relevant element is the highest one in the clause in either case, the surface structure will be the same and there is no scope or other evidence to distinguish between the two options.

However, as is apparent from the availability of the information-seeking reading, *-hAn* does not force a change in the Call on Addressee, even if a rhetorical or conjectural interpretation is preferred; the information-seeking function is softened, but it can still be there. As such, the effect of *-hAn* on the higher layers is gradient rather than absolute: it can be seen as softening the information-seeking Call on Addressee, and at one extreme, the call is softened to the extent that the requirement for the addressee to respond is wholly erased, turning the question into a rhetorical one. I return to this in terms of a general pragmatic account imminently below.

Like *-hAn*, *-pA* can also be used in a variety of question types without forcing a certain interpretation. Consider (32):

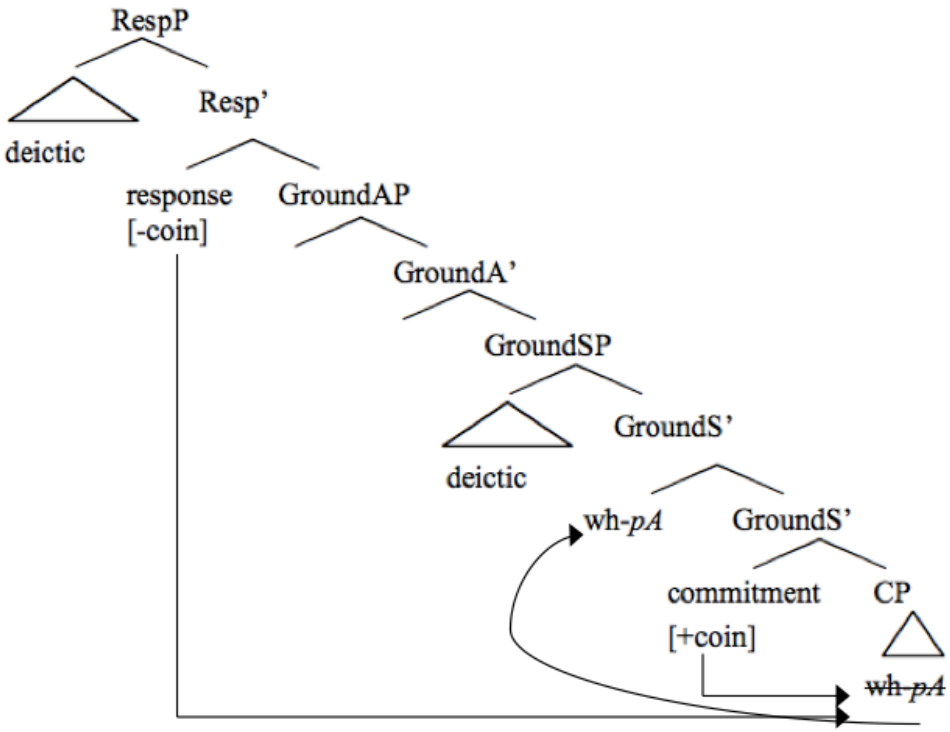
(32) a. Mitä-**pä** sinä siellä tekisit?
what-*pA* you there would.do.2SG
"What would you do there?"

b. Kuka-**pa** olisi veikannut, että Keskusta kokee
who-*pA* would have guessed that the Centre Party experiences
vaalitappion?!
election loss-ACC
"Who would have thought that the Centre Party would face election loss?/!"

c. Mitä-**pä** jos kaikki olisi toisin?
what-*pA* if everything would.be different
"What if everything was different?"

In (32a) *-pA* adds a sense of doubt or surprise: it can be read either as a rhetorical or information-seeking question. (32b) is a rhetorical question, where *-pA* again adds an element of surprise. (32c) also does not require a response: here, the version without *-pA* sounds somewhat odd, and the 'what if' interpretation can be taken to be lexicalized. It thus works much in the same way as *-hAn*. The structure is schematized in (33):

(33)

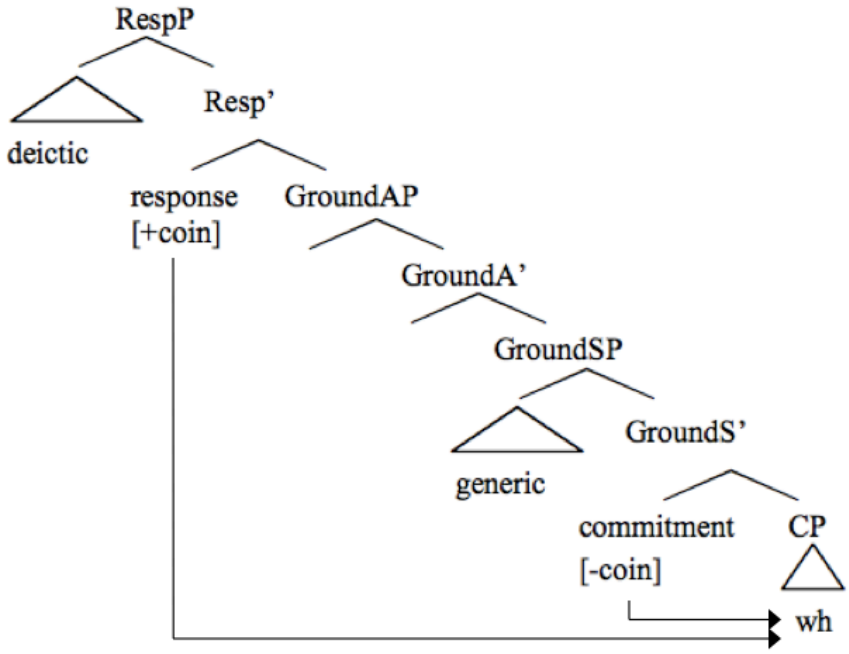


This is parallel to (31), with the difference that the wh-phrase carrying *-pA* does not move to GroundAP from GroundSP.

Interestingly, there does not seem to be much of a difference between speaker and addressee orientation in the way *-hAn* and *-pA* interact with the Response Layer. Rather, they both have the effect that the question is more likely to be interpreted as non-information-seeking. Of course, their speaker- and addressee-related functions can be reflected in finer-grained distinctions in the pragmatic import of the questions they express: the doubt and surprise related to *-pA*, for instance, are clearly speaker-oriented functions. These, however, fall out from the particles' association with speaker- and addressee-related projections in the Grounding Layer, as discussed in chapter 3, rather than the Response Layer discussed here.

The overall picture that the Finnish particles offers, then, is one of gradience. This ties in with the bigger theoretical conundrum in syntax of how to represent optionality and gradient functions in a system that tends to assume binary values. Specifically to the case at hand, the grey area lies between the structures (31) and (33) representing the rhetorical question configuration in the Response Layer with *-hAn* and *-pA*, on the one hand, and clear particle-less information-seeking questions, as schematized in (34), on the other.

(34)



I propose that the gradient effect is not a syntactically encoded one, but rather derives from general pragmatic processes. In chapter 3, I derived the softening effect *-hAn* and *-pA* have on imperatives from basic Gricean reasoning and Horn's (1984) Q and R principles. The same approach can be applied to the phenomenon here. From Horn's R Principle ("Make your contribution necessary; say no more than you must (given Q)") and Q Principle ("Make your contribution sufficient; say as much as you can (given R)"), it follows that using a more marked expression – here, a particle – when a less marked version is available – a particle-less question – conveys a more marked message – here, a rhetorical question. So, the cases where a *-hAn-* or *-pA-* marked question is interpreted straightforwardly as rhetorical and which are syntactically encoded as in (31) and (33) match the strongest outcome of this Gricean reasoning process. The reasoning, however, allows for gradience, and this is what gives rise to the different degrees of whether or not the addressee is called to respond

to the question marked with *-hAn* or *-pA*. This tallies with Caponigro and Sprouse's (2007) observation that rhetorical questions do allow an answer, even if there is no call for one. In this, they differ from statements. Consider (35), uttered in a context where both the speaker and addressee know that Luca was dancing at the party at 3am:

(35) a. S: You should stop saying that Luca didn't like the party last night. After all, who was the only one that was still dancing at 3am?
S or A: Luca.

b. S: You should stop saying that Luca didn't like the party last night. After all, Luca was the only one that was still dancing at 3am.
S or A: # Luca.

(from *ibid.*:124)

Here, the rhetorical question in (35a) can be answered felicitously by either the speaker or the addressee, but the declarative in (35b) cannot.

This shows that not all discourse effects can, or should, be syntactisized; rather, where there are grey areas and gradience between syntactically encoded states of affairs, the relevant question to ask is whether such gradience can be captured by pragmatic reasoning. This is also very much compatible with the USH-based view of units of language as lexically underspecified. While they gain their meaning in interaction with the position they associate with on the syntactic spine, this still leaves room for further interpretive effects to be derived from the wider non-linguistic context. As such, general pragmatic reasoning in association with a USH-based approach can shed significant light on the vagueness so often associated with discourse-related phenomena.

5.4 Conclusion

The above discussion has established a real call for an additional discourse-related layer, the Response Layer. Motivated here by the different behaviour of various question types in Japanese, it has proved a valuable tool to capture some of these differences. As such, it makes a case for a USH-based approach to discourse-related syntax over Speas and Tenny's (2003) and Tenny's (2006) analyses, for example, where a single Speech Act Layer with an interrogative flip mechanism cannot address the rich variety of question types.

Importantly, though, this is not to say that all discourse-related effects should be encoded syntactically, as the discussion of the Finnish particles in rhetorical questions showed: instead, gradience, in this case in how rhetorical a question is, can be better understood through general pragmatic reasoning. That gradience really is something that should be taken seriously in grammar is the topic of the next chapter, too, where I turn to shades of nullness in Finnish and Japanese.

Chapter 6 Degrees of nullness in Finnish and Japanese

6.1 Introduction

The preceding chapters have very much focused on overt ways of marking discourse functions: discourse particles encoding speaker- and addressee-related information, and movement and the particle *wa* marking contrast. Yet what is systematically omitted can be as meaningful in a pragmatic sense as what is overtly expressed. It turns out that silence is golden for linguistic theory as well: both Finnish and Japanese employ degrees of nullness to encode discourse preferences. The focus here will be on null subjects in Finnish, and case marker drop in Japanese. Although very different phenomena at first glance, they both interact with the givenness of information, and they both refuse to be captured by purely structural accounts.

This observation tallies with Patel-Grosz's (2018) work on pronominal systems. Patel-Grosz observes that cross-linguistically, there are deficits in the understanding of the form and meaning of anaphora, and that one way forward is to capitalize on the scalar nature of many pronominal systems. In many languages, there are several pronominal classes that vary in strength, giving a hierarchy such as the one in (1):

(1) Pronominal strength hierarchy[75]
null pronoun < clitic personal pronoun < strong personal pronoun < demonstrative pronoun

(from *ibid.*:1)

The hierarchy highlights the interaction between syntax and pragmatics – pragmatic factors can influence which pronominal form is selected – and its effects can be seen in relation to an array of phenomena, including anti-topicality effects, whether or not a pronominal needs an antecedent, quantifier-variable binding, and *de se* versus *de re* readings, among others.

[75] As Patel-Grosz notes, this is a simplified hierarchy, and other categories could undoubtedly be added to it. However, for the purposes of this discussion, the categories presented in (1) are sufficient.

Languages vary not only in which pronominal categories they have, but also in how they slice the hierarchy. Consider (2) from German:

(2) Hans$_1$ wollte mit Paul$_2$ joggen aber {er$_{1/2}$ / der$_{*1/2}$} war krank.
Hans wanted with Paul jog but he DEM was sick
"Hans wanted to go running with Paul, but he was sick."
(from *ibid.*:1)

Here, the personal pronoun *er* can refer either to the topic of the matrix clause, Hans, or to Paul. The demonstrative pronoun *der*, on the other hand, can only refer to the non-topic Paul.

Contrast this with Kutchi Gujarati:

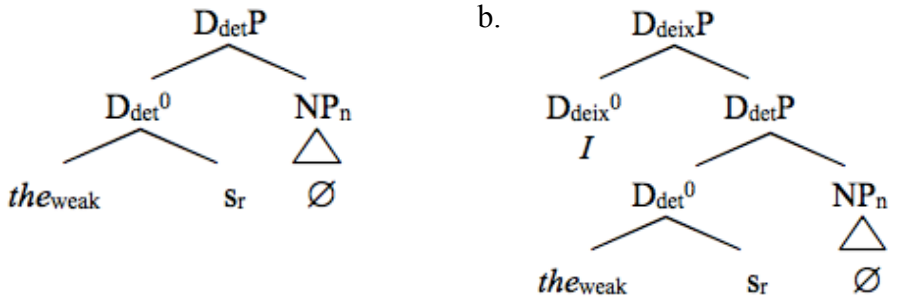
(3) John$_1$-ne Paul$_2$ saathe dhorva javu thu, pun {pro$_{1/\#2}$ / i$_{*1/2}$} thandithi aavi thi.
John-DAT Paul with run.INF go AUX but pro he cold came AUX
"John wanted to go running with Paul. But he had a cold."
(from *ibid.*:2)

Here, the null pronoun refers preferably to the topic, i.e. John, while the overt pronoun *i* can only refer to the non-topic, i.e. Paul.

So, while German draws the relevant contrast regarding topic reference between personal and demonstrative pronouns, in Kutchi Gujarati the line is drawn between null and overt pronouns. What remains constant, though, is the fact that the stronger form is the one associated with a pragmatically more marked function.

Patel-Grosz takes this to follow from the structure of the pronouns. While both demonstrative and personal pronouns contain a null NP, they differ in that personal pronouns have a weak determiner, but a demonstrative has a strong determiner, requiring an additional index argument (*I* in (4b)) that picks out an individual discourse referent. With personal pronouns, in contrast, the weak determiner merely picks out a unique individual in the restrictor situation (s_r) with the NP property NP_n. This is summarized in (4a) for a personal pronoun and (4b) for a demonstrative:

(4) a. b.



(from Patel-Grosz and Grosz, 2017:262)

It follows that pronouns are subject to structural economy constraints, implemented in terms of a generalized DP minimization principle.[76]

In the following, I will show that the same observation – that certain phenomena that cannot be understood in purely syntactic terms are perhaps better amenable to gradient and relational analyses – can reveal important patterns in both Finnish and Japanese. Furthermore, this goes beyond pronominal systems, as the discussion of Japanese will show, highlighting points of cross-linguistic variation in the ways different languages can express discourse-related meanings by employing elements such as case markers that have traditionally been taken to be very non-pragmatic. The first section discusses null subjects and possessive suffixes in Finnish, and the second turns to case marker drop in Japanese.

6.2 Null subjects and possessive suffixes: weighing up the Finnish pronominal system

Finnish is often cited as a prototypical example of a partial null subject language. It allows referential null subjects freely in the first and second persons, while definite

[76] This connects with Cardinaletti and Starke's (1999) ideas of structural deficiency and how it maps onto other aspects of the relevant elements' – here, pronouns' – behaviour: some pronouns have deficient syntactic structure, which further correlates with distributional, morphological, semantic and prosodic deficiency. The idea of deficiency can be generalized to other grammatical categories as well, such as modal particles (Cardinaletti, 2007, 2011), and, indeed clauses of different sizes (see the discussion based on Haegeman and Endo's (forthcoming) framework in chapter 4); this idea will become increasingly relevant as the chapter progresses.

third person null subjects must be bound by an antecedent.[77] However, the availability of null subjects is very register-dependent, and the description of partial null subject language fits chiefly the formal, written register. Colloquial Finnish, on the other hand, is very much a non-null subject language (Vainikka and Levy, 1999; Modesto, 2008). Holmberg (2005) notes that null subjects are prescribed in schools and "its scarcity in the spoken language is much lamented" (*ibid*.:6).[78] Heinonen (1995 cited in Vainikka and Levy, 1999:662), in turn, found that the first person singular pronoun was omitted 91% of the time in written Finnish, whereas in spoken Finnish it was

[77] Finnish allows also quasi-referential null subjects:

(i) Ei ole yllättävää, että Pussy Riot joutui vankilaan.
not is surprising that Pussy Riot ended up prison-ILL
"It is not surprising that Pussy Riot ended up in prison."

It does not, however, allow non-referential null subjects and has the obligatory expletive *sitä*. Consider the contrast in (ii):

(ii) a. Putin voi tuomita Pussy Riotin vankilaan.
Putin can sentence Pussy Riot-ACC prison-ILL
"Putin can sentence Pussy Riot to prison."

b. Sitä voi tuomita Putin Pussy Riotin vankilaan.
EXPL can sentence Putin Pussy Riot-ACC prison-ILL

c. * Voi tuomita Putin Pussy Riotion vankilaan.
can sentence Putin Pussy Riot-ACC prison-ILL

Here, the preverbal position (spec,FP unless the constituent has undergone further movement to a contrast-related position) must be occupied by an overt constituent, as is shown by the ungrammaticality of the c-example; this role can be fulfilled by the expletive *sitä* as in the b-example, if another constituent does not move there. The absence of non-referential null subjects is not expected as null subject languages are standardly assumed to be able to license empty non-referential subjects given that empty referential subjects are licensed (Holmberg and Nikanne, 2002).

[78] This raises the question of how the non-colloquial system is acquired. Meisel, Elsig and Bonnesen (2011) note that children tend to be exposed to colloquial varieties, meaning that the primary linguistic data may lack properties of formal varieties during the early years of acquisition. They argue furthermore that if the acquisition of a property is delayed until age five or later, the acquired knowledge will resemble that of L2 learners. With respect to null subjects in Finnish, this implies that the speakers' knowledge of this aspect of the grammar may well be more akin to L2 learners'.

omitted only 12% of the time. An overt subject seems to also be preferred in embedded contexts in colloquial Finnish (Vainikka and Levy, 1999).

It should be noted that Finnish does not have null definite objects.[79] Consider (5):

(5) Eeva ei löytänyt avaimiaan, mutta Jussi löysi.
Eeva not found keys-3SG.POSS but Jussi found
"Eeva didn't find her keys but Jussi did."
(from Holmberg, forthcoming:21)

Holmberg takes the construction to be derived through verb-stranding VP ellipsis rather than object drop: as Finnish has verb movement to T, if the predicate is transitive and verb movement is followed by VP ellipsis, the result will look like object drop. In standard contexts of object drop, on the other hand, Finnish requires an overt pronoun:

(6) Jussi näki sen karhun. Eeva-kin näki *(sen).
Jussi saw that-ACC bear-ACC Eeva-*kin* saw it-ACC
"Jussi saw that bear. Eeva saw it, too."
(from *ibid*.:21)

The focus here will be on the less freely available third person null subjects. I will first discuss the structural conditions under which they are licensed, showing how there is no watertight analysis available in purely syntactic terms, with multiple independent factors affecting their availability. I will then turn to a discussion of the ways null subjects interact with topicality cross-linguistically, and introduce Frascarelli's (2007, 2018) approach linking third person null subjects with the notion of Aboutness-shift topics. Building on this framework, I will introduce data

[79] It does have a null generic direct object, which is similar to null arbitrary objects in Italian (as discussed in Rizzi, 1986 cited in Holmberg, 2010:223):

(i) Tämä päätös ei ilahduta.
this decision not happy.make
"This decision doesn't make one happy."
(from Holmberg, 2010b:223)

comparing pronouns of different strength, and establish a hierarchy of pronominal strength in terms of topicality, akin to Patel-Grosz's (2018) above. Finally, I will show that a similar hierarchy can be seen in action also with the Finnish possessive suffix.

6.2.1 Third person null subjects – a structural licensing mystery

As noted above, a crucial characteristic of null subjects in Finnish is that while first and second person pronouns can be null irrespective of their structural context, third person null subjects are much more restricted. A first step in understanding third person nulls subjects in Finnish is then establishing a structural account of the person split.

This ties in with the idea of representing speakers and addressees syntactically. Holmberg (2010b), for instance, makes the assumption that first and second person null subjects have speaker and addressee features as local antecedents: as these are always projected, null subjects in the relevant persons are not restricted to embedded contexts where they have an overtly specified antecedent in the matrix clause.[80] This builds on ideas proposed by Sigurðsson and Maling (2008, 2010) and Sigurðsson (2013) –discussed in chapter 2 –, offering a way of formalizing this intuition via the so-called Context Linking Generalization. This entails context-linking features, or C-edge linkers, in the C domain, including at least topic categories – most centrally the Aboutness-shift Topic (as in Frascarelli, 2007 below) –, speaker and addressee categories, i.e. the logophoric agent and patient features, as well as finiteness categories, such as speech tense and speech location. These context-linking features of the C domain enter into two-directional matching relations: with clause-internal

[80] This differs from Holmberg (2005), where it is argued that null first and second person pronouns are fully specified DPs that are deleted under the same mechanism as in other cases of ellipsis, while third person null subjects are inherently null deficient pronouns. A way of unifying this with the later speaker- and addressee-oriented approach stems from Cardinaletti and Starke (1999), as mentioned above: in their typology of structural deficiency, it is the structurally most complex pronouns – here, the first and second person ones – that can refer to animates and be linked to the context, i.e. in this case the speaker and addressee.

elements that may or may not be spelled out, on the one hand, and with clause-external topics and/or participants of the speech event, on the other. As Sigurðsson (2004) notes, this essentially encodes the Hockettian displacement property of language, i.e. the property that enables humans to communicate about events that are displaced, not present in the speech event.

As for personal pronouns, Sigurðsson and Maling (2008, 2010) argue that their person value results from a twofold matching process whereby an argument or event participant is first matched against an interpretable clausal Person head or feature, as being either +Pn or –Pn (see also chapter 2). +Pn arguments are then matched against the logophoric agent and patient features in the C domain. This is schematized in (7):

(7) $[_{CP}\ \Lambda_A$ - Λ_P … Pn … $[_{vP}\ NP_{\alpha Pn}]]$

Agree (valuing) — Agree (valuing)

(from Sigurðsson, 2017:208)

So, the pragmatic aspects of the meaning of pronouns are thus not extra-syntactic; rather, the constant referential meaning of first and second person pronouns is coreference with their local logophoric features, Λ_A and Λ_P.

Now, this differs from the framework adopted here, following Wiltschko and Heim (2016), where speaker- and addressee-related information is crucially separate from other context-related information, traditionally located in the C domain. The two frameworks are very much conceptually compatible, though: the relevant matching relation can hold equally well between speaker and addressee representations in a higher domain, such as GroundP, and the lower syntactic domains. The crucial insight from the Context Linking proposal for the discussion to follow is that while first and second persons have an antecedent by default, it has to be more explicit for the third person, giving rise to interesting interactions with topicality.

Although there are several suggestions as to what the structural conditions for licensing referential third person null subjects are, none of them can offer a definitive answer; or, as Vainikka and Levy (1999) and Holmberg (2005) put it, the exact

conditions under which a control relation between a null third person subject and its antecedent can be established remain unclear.

A vague, but descriptively accurate, observation is that third person null subjects can occur in embedded clauses as long as they have an antecedent in the matrix clause. This holds for both complement and adjunct clauses (Holmberg, forthcoming):

(8) a. Nadezda$_1$ sanoo, että *pro*$_1$ aikoo vastustaa Putinia.
Nadezda says that will defy Putin-PART
"Nadeza says that she will defy Putin."

b. Nadezda voi joutua vankilaan, jos soittaa kirkossa.
Nadezda can end up prison-ILL if plays church-INE
"Nadezda might end up in prison if she plays in a church."

Here, the null subject is equally accepted in the complement clause in (8a) and adjunct clause in (8b). There may, however, be a difference between the two types of clauses. Holmberg (forthcoming) argues that null subjects are particularly common and natural in adverbial clauses (Holmberg does not distinguish between central and peripheral adverbial clauses here à la Haegeman (2006, 2010), but the examples tend to use central adverbials). Alsaedi (2016 cited in *ibid*.:13) found in grammaticality judgement tests that Finnish L2 speakers of English accepted null subjects in English adverbial clauses more than in complement clauses. This, the author argues, is plausibly due to interference from Finnish. Furthermore, Shlonsky (2014 cited in *ibid*.:13) notes that in Hebrew third person null subjects are accepted in adverbial but not complement clauses. According to Shlonsky, the distribution of null subjects is inversely correlated with the availability of subject extraction: in Hebrew, the subject of an adverbial clause cannot move, but it can be null when controlled, while the subject of a complement clause embedded under verbs of saying and thinking can move, but it cannot be null. In Finnish, on the other hand, the subject of a complement clause can be controlled but it cannot move because of the that-trace effect. Finally, the interpretation of embedded third person null subjects in Italian – a consistent null subject language – and Finnish is more similar in adverbial than complement clauses (Frascarelli, 2018). There is certainly something to be said about the difference

between complement and adverbial clauses with respect to null subjects cross-linguistically, but that goes beyond the scope of the discussion here.

Modesto (2008) argues that the antecedent must c-command the embedded null subject, as is also the case in Brazilian Portuguese and Chinese. That a c-commanding antecedent is preferred is supported by the example in (9):

(9) [Jussin$_2$ äiti]$_1$ sanoo, että *pro*$_{1/*2}$ aikoo ostaa uuden auton.
Jussi-GEN mother says that will buy new-ACC car-ACC
"Jussi's mother says that she intends to buy a new car."
(from *ibid*.:9)

Here the reading where the null subject takes the subject NP *Jussin äiti* 'Jussi's mother' as its antecedent rather than the possessive *Jussin* is strongly preferred. Holmberg takes this to be a locality effect, where the bigger NP c-commands the null subject and is thereby structurally closer to it than the possessor NP. I will return to this example below with respect to topicality.

However, there is potential counter-evidence to the c-command condition. Gutman (2004), for instance, notes that not only a matrix-embedded relation between the antecedent and null subject can sanction the null subject. As it appears from (10), the antecedent and null subject can be in different, coordinated sentences:

(10) Pussy Riot$_1$ esiintyi kirkossa mutta *pro*$_1$ joutui sen vuoksi vankilaan.
Pussy Riot performed church-INE but ended up it-GEN because prison-ILL
"Pussy Riot performed in a church but ended up in prison because of it."

This could, of course, be a case of so-called conjunction reduction, and not reflect the availability of null subjects, contra Modesto's assumptions.

The same observation can be made with respect to cross-linguistic evidence. Ariel (1990) shows that null subjects are possible in conjoined clauses in Hebrew, another partial null subject language, as in example (11):

(11) Hayom noga$_1$ hitxila im shimon, u- le + daati maxar *pro*$_1$
today Noga made-a-pass at Shimon and- according to my opinion tomorrow
tatxil im david
will-make-pass at David
"Today Noga made a pass at Shimon, and according to my opinion, tomorrow she will make a pass at David."

(from *ibid*.111)

According to Ariel's account deriving from Accessibility Theory, the relation between the null subject and its antecedent improves if they belong to a relatively cohesive unit, embedding thus being preferred over conjoining; whether this is a case of true null subjects, though, remains unclear. Crucially, this does not rule out cases without a c-command relation, even if they are not as easily accessible.

Furthermore, not all (c-commanding) constituents are equally available as antecedents. Gutman (2004) observes that in Finnish, subjects are the best antecedents, objects not as good as subjects, and other antecedents even less acceptable than objects. There are also structural conditions that may facilitate the interpretation of a non-subject constituent as the antecedent of the null subject. Modesto notes that movement of the matrix object improves its accessibility as an antecedent to the embedded null subject, as in (12):

(12) a. Nadežda$_1$ vakuutti Marialle$_2$, että *pro*$_{1/??2}$ voi tulla vapautetuksi.
Nadežda assured Maria-ALL that can come freed
"Nadežda assured Maria that she can get freed."

b. Marialle$_2$ vakuutti Nadežda$_1$, että *pro*$_{1/?2}$ voi tulla vapautetuksi.
Maria-ALL assured Nadežda that can come freed
"Maria, Nadežda assured her that she can get freed."

In (12b) where the allative constituent has undergone contrastive movement, the reading with it as the antecedent is improved as compared to (12a) with the object in situ. However, in both cases the subject of the matrix clause remains the preferred

antecedent.[81] This becomes relevant in the discussion below regarding the information-structural status of the antecedent.

A number of other factors have been proposed to interact with an embedded third person null subject as well. Modesto, for instance, notes that conditional mood may facilitate the availability of these null subjects. The allative object is more acceptable as the antecedent in (13b) with conditional mood in the embedded clause, as compared to (13a) with an indicative:

(13) a. Nadežda$_1$ sanoi Marialle$_2$, että *pro*$_{1/??2}$ ottaa maskin mukaan.
Nadežda said Maria-ALL that takes mask-ACC along
"Nadežda said to Maria that she will take the mask along."

b. Nadežda$_1$ sanoi Marialle$_2$, että *pro*$_{1/?2}$ ottaisi maskin mukaan.
Nadežda said Maria-ALL that take-COND mask-ACC along
"Nadežda said to Maria that she (Nadežda) would bring the mask along./ Nadežda told Maria to bring the mask along."

Modesto argues that this effect may derive from a hidden subjunctive in the embedded clause: such examples are often translated by a subjunctive in Romance, and while Finnish lacks a morphological subjunctive, the conditional mood may sometimes correspond to the Romance uses of the subjunctive. How robust the empirical observation is, however, remains to be tested against more data, and depends on a thorough comparison of the size of the relevant embedded clauses in Finnish.

Further conditions on the relation between the antecedent and null subject include the prohibition against split antecedents, as in (14), the availability of only a sloppy reading under VP ellipsis, as in (15), and that with *only*-NP antecedents the null embedded subject receives a covariant interpretation, as in (16) (Modesto, 2008):

[81] In this respect Finnish differs from Brazilian Portuguese, where the moved object becomes the preferred antecedent (Modesto, 2008).

(14) ? Maria$_1$ kysyi Nadeždalta$_2$, *pro*$_{1+2}$ voivatko esiintyä kirkossa.
Maria asked Nadežda-ABL can-Q perform church-INE
"Maria asked Nadežda if they could perform in a church."

(15) Nadežda$_1$ sanoi, että *pro*$_1$ oli joutunut ihmisoikeusrikkomuksen uhriksi, ja niin Maria-kin.
Nadežda said that had ended up human rights violation-GEN victim-TRANS and so Maria-*kin*
"Nadežda said that she had become a victim of a human rights violation, and Maria did too."

(16) Vain Putin$_1$ ajatteli, että *pro*$_1$ ei ollut aiheuttanut ihmisoikeusrikkomusta.
only Putin thought that not had caused human rights violation-PART
"Only Putin thought that he had not caused a human rights violation."

However, the prohibition against split antecedents is not absolute, to say the least. Frascarelli (2018) shows that native speakers' acceptability judgements are evenly split in the case of split (or, in Frascarelli's terminology, 'conjoined') antecedents. The test case, in (17), yielded 50%-50% grammaticality judgements.

(17) Marja$_1$ kertoi Jarille$_2$, etteivät *pro*$_{1+2}$ voi matkustaa.
Marja told Jari-ALL that-not-3PL can travel
"Marja told Jari that they cannot travel."

(from Frascarelli, 2014:11)

Again, this is also supported by cross-linguistic evidence. Ariel (1990) cites the following example from Hebrew:

(18) Noga$_1$ bikra et Shimon$_2$ al ma'amaro ha šovinisti kše na'su *pro*$_{1+2}$ li-yrušalayim
Noga criticized.3FS ACC Shimon on article.3MS the chauvinist when drove to-Jerusalem
"Noga criticized Shimon on his chauvinistic article when they drove to Jerusalem."

(from *ibid.*:111)

So, it would seem that while some cases of split antecedents are indeed degraded, there is no absolute prohibition against them per se.

Another factor argued to facilitate embedded null subjects is logophoricity. Holmberg (2005) notes that an embedded null subject is more acceptable when it is logophoric. Compare (19a) with a logophoric null subject and (19b) with a non-logophoric one:

(19) a. Jarille$_1$ selvisi ettei *pro*$_1$ saisi ikinä palkintoa.
Jari-ALL became clear that-not get-COND ever prize
"It became clear to Jari that he wouldn't ever get a prize."

b. Kirjasta selvisi ettei se/**pro* saisi ikinä palkintoa.
book-ELA became clear that-not it get-COND ever prize
"It was clear from the book that it wouldn't ever get a prize."
(from *ibid.*:551ff.)

However, as Holmberg observes, the null subject need not be logophoric, as it may occur in factive complements, which are not conducive to logophoricity:

(20) Nadežda$_1$ tiesi, että *pro*$_1$ ei saanut soittaa kirkossa.
Nadežda knew that not may play chuch-INE
"Nadežda knew that she was not allowed to play in the church."

Hence, the facilitating effect of logophoric contexts is a preference at most, perhaps pertaining to the general semantic effects of the verbs used in the construction. I will not discuss these conspiring factors further here, as much more data and different contexts would have to be considered to establish how robust the observed effects actually are, which deviates from the focus of the discussion here.

In terms of syntactic structure, a third person null subject must occupy a high enough position to be interpreted as definite.[82] This is apparent from the contrast in (21), first observed by Hakulinen (1976 in Vainikka and Levy, 1999:648):

[82] This is not unexpected given Holmberg's (2002) observation that a pronominal subject must move to spec,TopP. In constructions with pronominal subjects, spec,TopP cannot be filled by another element,

(21) a. Nadežda tietää, että Putinia ei pysty kritisoimaan.
Nadežda knows that Putin-PART not can criticize
"Nadežda knows that one cannot criticize Putin."

b. Nadežda$_1$ tietää, että *pro*$_1$ ei pysty kritisoimaan Putinia.
Nadežda knows that not can criticize Putin-PART
"Nadežda knows that she cannot criticize Putin."

While in (21b), the null subject is coreferential with the matrix subject, only a generic reading is allowed in (21a), where the object has moved into pre-verbal position. Based on this contrast, Vainikka and Levy (1999), among others, argue that in the generic impersonal construction, (21a), an overt non-subject element must occupy spec,FP, implying that the null generic pronoun must be located somewhere else in a lower position. Of course, it could be the case that the generic null subject is not syntactically realized at all. However, the generic subject can act as the binder of an anaphor, as in (22):

(22) Venäjällä pelkää sananvapautensa puolesta.
Russia-ADE be afraid right to free speech-3SG.POSS for
"In Russia, one is afraid for one's right to free speech."

Furthermore, an accusative object is realized with the *-n* suffix only when the verb agrees with the subject and in the generic impersonal construction, while elsewhere, as in the passive, it is marked nominative (Holmberg, 2005; Vainikka and Levy, 1999). The contrast is shown in the generic impersonal construction in (23):

(23) Täällä voi ostaa auton/ *auto.
here can buy car-ACC car
(from Holmberg, 2005:551)

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unless the subject pronoun is focused, by intonation or other means. I take spec,TopP to correspond to spec,FP in the notation employed here.

So, the generic null subject would seem to be syntactically realized, albeit in a lower position than its definite counterpart.[83] This tallies with the assumption that referential entities have a higher relative position, RefP, as compared to non-referential ones (for example, Kiss, 1996).

According to Holmberg (2005), it is not clear why the null generic subject has to remain in a low position, and this question has attracted various proposals. Modesto (2008), for instance, argues that the contrast in (21) is an intervention effect, in that the intervening topic in (21a) prevents a chain being formed between the higher and the embedded subject. Also Sigurðsson (2011) derives the difference between definite and generic third person pronouns from differences in linking them to a higher element. He argues that as impersonal null subjects need not be C/edge-linked, instead receiving an impersonal reading by default, such null subjects need not raise into the C domain and hence they can be grammatical in main clauses. A referential null subject, on the other hand, picks up the reference of the structurally and semantically most prominent antecedent in its immediate linguistic context, and must therefore raise into the C domain. If no such plausible antecedent is found, the null subject does not raise and gets an indefinite, non-referential interpretation. This analysis is supported by a parallel phenomenon in Icelandic. Consider (24):

(24) a. Hér má ekki reykja
here may.3SG not smoke
"One can't smoke here./ It is not allowed to smoke here."

b. Má ekki reykja hér?
may.3SG not smoke here
"Can one not smoke here?/ Is it not allowed to smoke here?"
(from Sigurðsson, 2011:297)

[83] Of course, this conclusion is theory-dependent: Johns (2005) argues that the null generic pronoun need not be syntactically projected if one adopts Williams's (1994 in Johns, 2005:2) theta-binding theory, where a binding relation does not necessitate that the relevant arguments are syntactically projected.

The fact that an impersonal null subject is allowed in declarative clauses with a filled spec,CP, as in (24a), and in questions, as in (24b), shows that it is not subject to C/edge-linking requirements.

What emerges from the above discussion is a system where structural considerations are undoubtedly at play, but which cannot be reduced to syntax alone. This suggests that there may be something more pragmatic to be considered.

6.2.2 Topics to the rescue of Finnish null subjects

Key to understanding the pragmatics of null arguments is the notion of topicality – which is also a central to Patel-Grosz's (2018) pronominal strength hierarchies. In order to establish how pronouns of different strengths interact with topicality in Finnish, I will first discuss cross-linguistic evidence for the central role of topicality in the interpretation of null elements, offering a basis for Frascarelli and Jiménez-Fernández's (2015) and Frascarelli's (2018) topic-based account of null subjects.

The basis for any pragmatic distinction between null and overt pronouns follows intuitively from considerations of economy. Chomsky (1981:65), for instance, proposes an Avoid Pronoun principle: "Avoid overt pronoun, whenever possible." This can be further fleshed out in Gricean terms, as mentioned in chapters 3 and 5 in the context of the Finnish particles. To recap, from Horn's (1984 in Dimitriadis, 1996:2) R Principle ("Make your contribution necessary; say no more than you must (given Q)") and Q Principle ("Make your contribution sufficient; say as much as you can (given R)"), it follows that "[t]he use of a marked (relatively complex and/or prolix) expression when a corresponding unmarked (simpler, less 'effortful') alternate expression is available tends to be interpreted as conveying a marked message (one which the unmarked alternative would not or could not have conveyed)" (Dimitriadis, 1996:2). In other words, a structure is the more likely to be partly spelled out the more complex or marked it is, i.e. the more information it contains: overt pronouns are consequently expected to express some additional properties such as focus or shifted topic, not present in corresponding null argument constructions (Sigurðsson and Maling, 2008, 2010).

Crucially, it would seem that from a cross-linguistic perspective the more marked functions tend to relate to changes in the discourse topic. Déchaine and Wiltschko (2002), for instance, study the role of strong and weak pronouns in switch reference and obviation systems: in the former, the distinctness of the subject of a dependent clause from that of the main clause is marked by different-subject marking, while in the latter, an obviative-marked argument is obligatorily disjoint from a proximate-marked one. It would seem that strong pronouns mark different-subject and obviative arguments, while weak pronouns mark same-subject and proximate arguments.

Grimshaw and Samek-Lodovici (1996) also relate the option of null subjects to the 'sameness' of a discourse topic, showing that dropping an argument is only possible when the missing argument is coreferential with a preceding topic in a number of languages. This can be illustrated through the Hebrew examples in (25):

(25) a. Ha-xoze ha-ze nextam al-yedey ha-nasi$_1$ ba-šloša be Yuli.
the-contract the-this was-signed by the-president in-three of July
"This contract was signed by the president on the third of July."
Lemoxorat **pro*$_1$/hu$_1$ xatam al xoze xadaš.
the next day (he)/ he signed on contract new
"The next day he signed a new contract."

b. Ba-šloa be Juli xatam ha-nasi$_1$ al ha-xoze ha-ze.
in-three in July signed the-president on the-contract the-this
"On the third of July, the president signed the contract."
Lemoxorat *pro*$_1$/hu$_1$ xatam al xoze xada.
the next day (he)/ he signed on contract new
"The next day he signed a new contract."
(from Grimshaw and Samek-Lodovici, 1996:198-199)

In (25a), *ha-nasi* is not a topic, and it cannot be referred to by a null pronoun in the following sentence; in (25b), on the other hand, it is the topic, and a null pronoun is allowed in the following discourse. Grimshaw and Samek-Lodovici cite similar examples also from Greek, Italian, and Chinese; furthermore, according to the authors, at least in Italian, "pro-drop is required when the subject has a topic as

antecedent, disallowed elsewhere. It is less clear whether such a generalization holds for all the languages" (p.212).

McShane (2009), in turn, notes several pragmatic restrictions on third person null subjects in Polish. For example, an overt subject is required in the subordinate clause if the subordinate subject is not coreferential with the matrix one, while matrix clauses disallow null subjects if there is a shift in the subject referent of sequential main clauses, or a shift in agent or experiencer between a denominal and a subsequent tensed clause, and if the antecedent is a rhematic subject. McShane reduces the last case to accessibility, arguing that the theme is what is most expected to be continued in the next utterance, so that when a rheme is continued instead, an overt subject is needed to establish the necessary reference relation. What unites these conditions would seem to be, again, the continuity or shifting of a topic.

Given the above discussion, the link between nullness and topic continuity is well-motivated. To capture the descriptive generalization in structural terms, I turn to Frascarelli's (2007, 2014, 2018) approach to null subjects in consistent and partial null subject languages. The crux is that a thematic null subject is a pronominal variable, the antecedent of which is a local Aboutness-shift, or A-Topic. The A-Topic carries the discourse function of introducing a new topic, i.e. bringing about a shift of topics. Frascarelli takes it to be structurally realized in the highest TopP projection in the C-domain, but it is not clear that all languages host equally articulated topic projections; this, however, is not crucial to the discussion here. Furthermore, the A-Topic can be overt or silent; when it is silent, topic continuity is guaranteed by repeating it through low copies in what Frascarelli takes to be a FamP position. Crucially, the use of weak pronouns in a null subject language reduces to a stylistic means to restate the A-Topic.

To capture the different behaviour of consistent and partial null subject languages, Frascarelli (2018) proposes that the latter differ from the former type in adhering to a PF Visibility Condition on A-Topic chains. This condition entails first that the A-Topic must be overt in partial null subject languages, and second, that topic chains must be minimized; the latter may be a language-specific microparameter, applying at least in Finnish.

To illustrate the second point, Frascarelli draws on acceptability judgements of examples such as (26) from an online survey:

(26) Jaria1 harmittaa, että Leo2 ajattelee, että pro1/2 häviää kilpailun.
Jari-PART be annoyed that Leo thinks that loses race-ACC
"Jari is annoyed that Leo thinks that he will lose the race."
(from Frascarelli, 2014.:9)

Here, there is a preference for the null subject to take a local antecedent, Leo, but non-local control, by Jari, is also allowed. This shows that the controller of an embedded null subject is indeed the local A-Topic rather than the local subject: either *Leo* or *Jari* can function as the A-Topic.

Finnish does differ from a consistent null subject language, as predicted, though, in that for example in Italian, the non-local antecedent is more acceptable than in Finnish. This follows the above-mentioned requirement of minimizing A-Topic chains, stating a preference to choose the minimal overt link. Either Jari or Leo can start the A-Topic chain by merging a silent copy in the ShiftP in the C domain, as in (27):

(27) a. [ShiftP <Leo$_z$> Jaria harmittaa][CP että [FamP **Leo$_z$** [pro$_k$ ajattelee [CP että[FamP <Leo$_k$>[pro$_k$ häviää kilpailun
[+aboutness]

b. [ShiftP <Jari$_k$>[FamP **Jaria$_k$**[pro$_k$ harmittaa][CP että [FamP<Jari$_k$>[Leo ajattelee[CP että[FamP<Jari$_k$>[**pro$_k$** häviää kilpailun
[+aboutness]

(from Frascarelli, 2014:9)

Crucially, the link between pro and the overt instantiation of Leo in (27a) is shorter than that in (27b), between pro and the overt copy of Jari. Finnish, but not Italian, manifests the preference for shorter A-Topic chains, and hence the local antecedent is preferred over the non-local one in the former but not latter case.

As for the visibility requirement at PF, Finnish differs from Italian in that the head of

its A-Topic chains must be overt, while in the latter it can be silent (Frascarelli, 2018). Hence, in cases such as (28), the non-topical, background constituent can be resumed as the silent A-Topic of the following sentence in the Italian (28a) whereas it is much less acceptable in the Finnish (28b):

(28) a. A Leo non ha ancora parlato Marco$_1$: pro$_1$ è sempre così occupato!
to Leo not has yet spoken Marco is always so busy

b. ?? Leolle Marco$_1$ ei ole vielä puhunut: pro$_1$ on aina niin kiireinen!
Leo-ALL Marco not has yet spoken is always so busy
"To Leo, Marco has not spoken yet: he is always so busy!
(from Frascarelli, 2014.:11)

Based on the above discussion, it can be argued that Finnish null subjects relate to topicality; whether or not the structural facts operate exactly as in Frascarelli's approach does not have an impact on the discussion here. The approach does not, however, address how null pronouns differ from their overt counterparts in much detail. This question is the topic of the following section.

6.2.3 A scale of strength for the Finnish pronominal system

In order to determine how pronominal elements of different strengths – null pronouns, overt personal pronouns, and demonstrative pronouns – behave with respect to topicality, I consider their behaviour in different contexts. What emerges is a similar scale of strength as those highlighted by Patel-Grosz (2018).

The first context involves sentences where the pronominal element appears in a clause embedded under a bridge verb, and where only one possible antecedent is present in the preceding clause. Consider (29):

(29) a. Nadezda kertoi, että oli joutunut tutkintavankeuteen.
Nadeza told that had ended up detention-ILL

b. Nadezda kertoi, että hän oli joutunut tutkintavankeuteen.
Nadeza told that s/he had ended up detention-ILL

c. Nadezda kertoi, että tämä oli joutunut tutkintavankeuteen.
Nadeza told that DEM had ended.up detention-ILL
"Nadezda related that she/ he had ended up in detention."

In (29a), the embedded null subject can only refer to the matrix subject. This is expected as it is the only available antecedent in the context. In (29b), where an overt personal pronoun appears in the embedded clause, it can refer to either the matrix subject, or to a different person not spelled out here. This contrast tallies with Frascarelli and Jiménez-Fernández's (2015) and Frascarelli's (2014, 2018) findings, as well as Holmberg (forthcoming), where a null pronoun was interpreted preferentially as coreferential with the matrix subject and an overt pronoun could refer to either the matrix subject or a contextually determined referent. Based on this, Frascarelli argues that null subjects and weak pronouns have similar properties, and that the use of an overt pronoun does not disambiguate the sentence. However, in the face of Patel-Grosz's pronominal strength hierarchies, the different preferential interpretations of the two types of pronouns are more meaningful, as they clearly form a scale of how preferred the matrix subject referent is.

This is further supported by considerations of demonstrative pronouns, a step further on the strength hierarchy. (29c) has the demonstrative pronoun *tämä*: here, there is a preference to interpret it as referring to a person that is not the matrix subject, although some informants can also get a reading where it refers to *Nadezda*. A similar function, for some speakers at least, is carried by the third person pronoun *se*; see the footnote for a short excursus there.[84] The distinction between the two overt pronouns,

[84] A further point of comparison is provided by the third person pronoun *se*. *Se* can refer to either humans or non-humans, although traditionally reference to humans is disallowed in written Finnish. *Hän*, on the other hand, can only refer to humans. Interestingly, Holmberg (forthcoming) observes that there is a preference for *hän* when the embedded subject is coreferential with the matrix subject and *se* when not:

hän and *tämä* is further corroborated by the data in (30), where the textual context specifies two possible antecedents instead of one:

(30) Nadezda puhui eilen ihmisoikeusjuristien kanssa sekä omista kokemuksistaan että Marian tilanteesta.
"Nadezda spoke with human rights lawyers yesterday, both about her own experiences and Maria's situation."

a. Nadezda kertoi muun muassa, että hän oli joutunut
Nadeza told among other things that s/he had ended up
tutkintavankeuteen.
detention-ILL

b. Nadezda kertoi muun muassa, että tämä oli joutunut
Nadeza told among other things that DEM had ended up
tutkintavankeuteen
detention-ILL
"Nadezda related among other things that she/he had ended up in detention."

Here, *Nadezda* is the topic, and it is also structurally closer to the embedded pronoun. When the personal pronoun is used, as in (30a), its preferred antecedent is *Nadezda*. On the other hand, with the demonstrative pronoun, as in (30b), the preferred antecedent is *Maria* (although the reading with *Nadezda* is also possible), suggesting that the demonstrative pronoun triggers an anti-topicality effect. It should be noted here that this is specifically a case of anti-topicality rather than focus: the demonstrative blocks reference to the topic, rather than seeking out a focus

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(i) [Jussin$_2$ äiti]$_1$ sanoo, että hän$_1$/ se$_2$ aikoo ostaa uuden auton.
Jussi-GEN mother says that s/he/ it intends buy new-ACC car-ACC
"Jussi's mother says that s/he intends to buy a new car."
(from *ibid*.:10ff.)

For some sepakers, the preference amounts to a rule, although the situation is made more complex by prescriptive rules of standard and written Finnish. For this reason, I will not focus on the differences between *se* and *hän* beyond this observation.

constituent as its antecedent.

The second context to be considered taps into the effect that the distance between the antecedent and the pronoun may have. Consider the set in (31):

(31) a. Nadezdaa harmittaa, että Maria ajattelee, että saa potkut.
Nadezda-PART annoy that Maria thinks that gets sack

b. Nadezdaa harmittaa, että Maria ajattelee, että hän saa potkut.
Nadezda-PART annoy that Maria thinks that s/he gets sack

c. Nadezdaa harmittaa, että Maria ajattelee, että tämä saa potkut.
Nadezda-PART annoy that Maria thinks that DEM gets sack
"Nadeza is annoyed that Maria things that s/he will get sacked."

As was discussed with respect to example (27) above, Frascarelli found that in Finnish the more local antecedent is preferred when the embedded pronoun is null. This is replicated in (31a), where *Maria* is taken to be the antecedent. On the other hand, in (31b) with the overt personal pronoun, *Nadezda* is the preferred antecedent, although *Maria* is also possible. Interestingly, with the demonstrative pronoun in (31c), *Maria* is taken to be the antecedent. As such, the null and demonstrative pronouns would appear to pattern together, in contrast to the overt personal pronoun. This is not expected given the pronominal strength hierarchy, and the findings supporting it above.

However, the dilemma is resolved if the null subject and demonstrative pronoun pick the local antecedent because of different pressures. First, as already mentioned, with null subjects the more local antecedent will be preferred, and this is based on a tendency to minimize topicality chains in partial null subject languages, as argued by Frascarelli and Jiménez-Fernández (2015) and Frascarelli (2018). On the other hand, while *Maria* can be taken to be a topic, as argued by Frascarelli, *Nadezda* is the overarching topic in this context, as the sentence reports her feelings about what Maria thinks. So, if the demonstrative pronoun is taken to induce an anti-topicality effect, as discussed above, it is predicted to take as its antecedent the contextually less

topic-like element, i.e. *Maria*.

The third set of contexts involves non-commanding, non-local antecedents. First, consider conjoined antecedents:

(32) a. Nadezda kertoi Marialle, etteivät voi esiintyä.
Nadezda told Maria-ALL that-not-3PL can perform

b. Nadezda kertoi Marialle, että he eivät voi esiintyä.
Nadezda told Maria-ALL that they not-3PL can perform

c. Nadezda kertoi Marialle, että nämä eivät voi esiintyä.
Nadezda told Maria-ALL that DEM.PL not-3PL can perform
"Nadezda told Maria that they cannot perform."

In (32a), the null embedded subject can only refer to *Nadezda and Maria*. This is in line with Frascarelli's (2014, 2018) findings, according to which acceptability of conjoined antecedents for null subjects in Finnish is varied, but if the sentence is accepted, the null subject must refer to the conjoined entity. The personal pronoun in (32b) is also interpreted as referring to *Nadezda and Maria*. A contrast emerges, however, between this and the demonstrative pronoun in (32c): the demonstrative pronoun is coreferential with a contextually determined entity that is not *Nadezda and Maria*. This is in line with its anti-topicality function observed above.

Again, the distinction between the personal and demonstrative pronouns is supported when the sentences to be judged are given in a context with an additional specified potential antecedent:

(33) Venäjän kulttuuriviranomaiset ilmoittivat Nadezdalle, että sekä Nadezdan ja Marian bändiltä että toiselta, kahden virolaisen ihmisoikeusaktivistin bändiltä kielletään esiintymisoikeus Euroviisujen karsinnassa.
"Russian culture officials notified Nadezda that both Nadezda and Maria's band and another band made up of two Estonian human rights activists would be banned from performing at the Eurovision selection contest."

a. Nadezda kertoi Marialle, että he eivät voi esiintyä.
Nadezda told Maria-ALL that they not-3PL can perform

b. Nadezda kertoi Marialle, että nämä eivät voi esiintyä.
Nadezda told Maria-ALL that DEM.PL not-3PL can perform
"Nadezda told Maria that they cannot perform."

In (33a), the personal pronoun refers to *Nadezda and Maria*, while in (33b) the preferred antecedent for the demonstrative is the other band; it can also refer to *Nadezda and Maria* but this is a more marked option.

The second instance of a non-local antecedent involves control across a non-argument local antecedent. Consider (34):

(34) a. Nadezda sanoi, että oli onni, että pääsi pakoon.
Nadezda said that was luck that got escape-ILL

b. Nadezda sanoi, että oli onni, että hän pääsi pakoon.
Nadezda said that was luck that s/he got escape-ILL

c. Nadezda sanoi, että oli onni, että tämä pääsi pakoon.
Nadezda said that was luck that DEM got escape-ILL
"Nadezda said that it was lucky that s/he got away."

Here, the noun *onni* 'luck' intervenes between the embedded pronominal element and *Nadezda*. In (34a), the null subject can, predictably, only refer to *Nadezda*. Frascarelli's (2014, 2018) data also support this. The personal pronoun in (34b) can refer to either *Nadezda* or a contextually specified referent, while the demonstrative in (34c) refers to a contextually specified referent, and not *Nadezda*.

However, there is some variability in the possible referent of the demonstrative pronoun when the sentences are given in a context where two potential antecedents are spelled out:

(35) Nadeza puhui eilen ihmisoikeusjuristien kanssa sekä omista kokemuksistaan että Marian tilanteesta.
"Yesterday Nadezda spoke with human rights lawyers both about her own experiences and Maria's situation."

a. Nadezda sanoi, että oli onni, että hän pääsi pakoon.
Nadezda said that was luck that s/he got escape-ILL

b. Nadezda sanoi, että oli onni, että tämä pääsi pakoon.
Nadezda said that was luck that DEM got escape-ILL
"Nadezda said that it was lucky that s/he got away."

The personal pronoun in (35a) refers to *Nadezda*, while the demonstrative can refer to either *Nadezda* or *Maria*.

The above data show that there is a hierarchy to be drawn with respect to how the pronominal elements considered interact with topicality. A null pronoun must refer to the current, preferably local topic, while the demonstrative pronoun is biased towards non-topic antecedents. The third person personal pronouns fall in between these two, showing variation between overtly specified, topic antecedents and contextually given, non-topic ones. The gradience between the two endpoints – overt, preferably local topics and non-topic antecedents – is schematized in Figure 2:

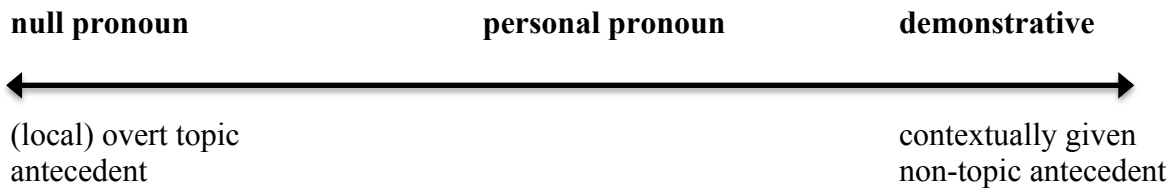

Figure 2. A hierarchy of Finnish pronouns and available antecedents

Unlike in Patel-Grosz's hierarchies, though, there is no clear cut-off point between topic and non-topic reference. Given the pragmatic nature of the phenomenon under discussion, however, this is hardly unexpected, and the question arises to what extent Patel-Grosz's original hierarchy splits are actually completely robust. To determine this, an empirical study with big judgement pools for various languages would be required; needless to say, this is beyond the scope of the discussion here, but the

discussion does point to avenues for future research.

6.2.4 There is more to nullness: pro gets possessive

Discussions of Finnish null pronouns in the literature have generally focused on null subjects, but recent work on the possessive suffix reveals an additional instance of *pro*, offering an interesting parallel to null subjects.[85] The possessive suffix marks person and number agreement on nouns (36a), adjective participles (36b), postpositions (36c), adverbs (36d), and non-finite verbs (36e):[86]

(36) a. Hän löysi pyörä-nsä.
s/he found bike-ACC.3SG.POSS
"She found her bike."

b. Pekka kunnosti ostama-nsa pyörän.
Pekka repaired buy.MA/PTCP-ACC.3SG.POSS bike.ACC
"Pekka repaired the bike he bought."

c. Pekka istui minun lähellä-ni.
Pekka sat I-GEN near-1SG.POSS
"Pekka sat near me."

[85] For a different take on null subjects and possessive suffixes in Brazilian Portuguese and Finnish, see Rodrigues (2004), arguing that null subjects in these languages are residues of A-movement rather than null pronouns. Closer scrutiny of the arguments goes beyond the scope of the discussion here, and I will merely note that such scrutiny can lead to interesting cross-linguistic comparisons, given that Finnish and Brazilian Portuguese are typically classified together as partial null subject languages.

[86] It should be noted that the third person possessive suffix does not have distinct forms for the singular and plural, but to reflect the glosses for the other persons, I use 3SG.POSS and 3PL.POSS here. I am adopting the glosses used by Huhmarniemi and Brattico (2015) for different types of non-finite forms:
KSE = purpose clause, a.k.a. rationale infinitival
MA/PTCP = agent participle
VA/PTCP = active present participle

d. Minä ostin pyörän voidakse-ni matkustella.
I bought bike.ACC be.able-KSE-1SG.POSS travel
"I bought a bike in order to travel."

e. Me uskoimme ostava-mme pyörän.
we believed buy.VA/PTCP-1PL.POSS bike.ACC
"We believed that we would buy a bike."
(from Huhmarniemi and Brattico, 2015.:3)

The use of the possessive suffix has, in general, a formal flavour to it; in the colloquial language, a possessive pronoun followed by a noun without the suffix is preferred. It is worth noting, though, that there are non-standard uses of the possessive suffix which are characteristic of certain dialects, and hence less formal language; see footnote 87 below.

What follows is an overview of Huhmarniemi and Brattico (2015), who analyze the possessive suffix much in line with the discussion of null subjects above: while there are undoubtedly structural conditions governing the acceptability of the possessive suffix, discourse-related considerations also come into play. I will first introduce the phenomenon and how it has been viewed in purely structural terms in the literature, and then turn to evidence showing that its distribution must take into account pragmatic factors as well. Finally, I will consider some empirical evidence showing how the referent of a third person possessive suffix alternates with the overtness versus nullness of a co-indexed possessive pronoun, lending further support to the pronominal strength hierarchy discussed above.

Just as with null subjects, the behaviour of the possessive suffix depends on its person specification. The third person possessive suffix behaves like a reflexive anaphor that takes a DP as its correlate. This correlate must be local, as shown by the contrast in (37):

(37) a. Pekka$_i$ korjasi pyörä-nsä$_i$.
Pekka fixed bike-ACC.3SG.POSS
"Pekka fixed his bike."

b. * Pekka$_i$ kertoi, että minä korjasin pyörä-nsä$_i$.
Pekka told that I fixed bike-ACC.3SG.POSS
Intended interpretation: "Pekka related that I fixed his bike."
(from *ibid*.:7)

First and second person possessive suffixes, on the other hand, can also access contextual correlates. As such, they display properties of a pronoun:

(38) Pekka korjasi pyörä-ni/-si.
Pekka fixed bike-ACC.1SG.POSS/2SG.POSS
"Pekka fixed my/ your bike."
(from *ibid*.:7)

This is akin to first and second person null subjects accessing antecedents in the Speech Act layer.

The person contrast can also be shown with the data in (39):

(39) a. (Minun) auto-ni hajosi.
my car-1SG.POSS broke
"My car broke."

b. (Sinun) auto-si hajosi.
your car-2SG.POSS broke
"Your car broke."

c. ?* (Hänen) auto-nsa hajosi.
his/her car-3SG.POSS broke
Intended reading: "His/her car broke."
(from *ibid*.:23)

Here, the possessive pronoun can be dropped in the first and second person, but not in the third person.

To account for the behaviour of the third person possessive suffix, in contrast to its first and second person counterparts, it has been standardly taken to be either a non-finite agreement marker, the distribution of which is accounted for by properties of agreement (Anderson, 2005; Karlsson, 1977; Nikanne, 1989; van Steenbergen, 1987, 1991 cited in *ibid*.:3), or an anaphoric element, coming under systems of binding, government, and anaphor resolution (Pierrehumbert, 1980; Toivonen, 2000; Hakulinen et al., 2004 cited in *ibid*.:3). Furthermore, some models argue that the possessive suffix can be either, depending on the context (Nelson, 1998; Toivonen, 2000; Hakulinen et al., 2004 cited in *ibid*.:3). Crucially, though, in all approaches, the possessive suffix must be c-commanded by its correlate.

However, Huhmarniemi and Brattico show that the c-command requirement is by no means absolute, and that there are several cases of so-called "wild antecedent" possessive suffixes, where the correlate is determined contextually. Consider (40):

(40) a. Tämä on [[[Jeren$_i$ ottama] kuva] siskosta-an$_i$ Jadesta]].
this is Jere-GEN take.MA/PTCP picture sister-ELA-3SG.POSS Jade-ELA
"This is the picture that Jere took of his sister Jade."

b. Äiti-nsä$_i$ lähtee mukaan ja onkin ihan kivaa matkaseuraa.
mother-3SG.POSS goes along and is-*kin* quite nice travel company
"His/her mother will come along, and she is quite nice travel company."

(from *ibid*.:4)

In (40a), the correlate, *Jere* is embedded too deeply within the DP headed by *kuva* 'picture' to c-command the possessive suffix. In (40b), on the other hand, there is no overt correlate at all.[87]

[87] The distribution of the lone possessive suffix is subject to dialectal variation. It is most common in the Tavastian dialects (Palander, 1999 cited in *ibid*.:20), whereas in normative grammar, the presence of an overt pronoun is compulsory. The latter option developed into the norm slowly from the beginning of the 20th century.

To capture this, Huhmarniemi and Brattico argue that the possessive suffix can be licensed either structurally or contextually. Key to the analysis is the postulation of a null pronoun in close proximity to the possessive suffix. The relation between a non-c-commanding wild antecedent and the possessive suffix is mediated through this pronoun, as illustrated in (41):

(41) Tämä on [[Jeren$_i$ ottama kuva] pro$_i$ siskosta-an Jadesta].
this is Jere-GEN take.MA/PTCP picture sister-ELA-3SG.POSS Jade-ELA
"This is the picture Jere took of his sister Jade."
(from *ibid*.:21)

Crucial support for the analysis comes from the observation that an overt pronoun can always appear where *pro* is argued to be, and the overt pronoun is equally able to pick up a wild antecedent:[88]

(42) Tämä on [[Jeren$_i$ ottama kuva] hänen$_i$ siskosta-an Jadesta].
this is Jere-GEN take.MA/PTCP picture his/her sister-ELA-3SG.POSS Jade-ELA
"This is the picture Jere took of his sister Jade."
(from *ibid*.:22)

Crucially, though, the overt and covert pronouns are not the same element: the overt pronoun has an additional reading where the antecedent is accessed from context. While this is an option for the covert pronoun as well, the reading is more restricted. I will return to differences between the two types of pronouns below.

To capture this difference, as well as the initial observation that c-command plays a role in the licensing of the possessive suffix, Huhmarniemi and Brattico argue that contextual licensing is a last resort mechanism. This is expressed in (43):

[88] Further evidence for a silent pronominal element, which I will not delve into further here, include the observations that the postulated element is subject to Condition C of Binding Theory, allows a sloppy identity reading, and can have split antecedents, just as overt pronouns do.

(43) Antecedent condition for null pronominals (Finnish)
A null pronominal in Finnish must be paired with an overt c-commanding antecedent, but if no such antecedent is found, the discourse repository is accessed as a last resort.

(from *ibid*.:30)

The first strategy is based on c-command and operates at the interface between narrow syntax and LF, and generates bound readings. The second strategy, on the other hand, accesses discourse and is sensitive to discourse properties, such as topicality and discourse salience. This explains why a c-commanding antecedent will always be preferred. However, what remains unexplained is why in some cases, such as (37b), the discourse repository is not sufficient to license the possessive suffix in the absence of a local c-commanding antecedent.

Now, Huhmarniemi and Brattico do not elaborate on how their model of accessing discourse works. I will argue below that using the discourse repository as a last resort is not something that ought to be captured syntactically, but that it is rather a general pragmatic phenomenon, parallel to the gradience found in the types of antecedents available for the Finnish null pronouns, as illustrated in Figure 2 above. I will return to this below, after first showing that there are indeed parallel differences in the functions of overt versus covert pronouns, as compared to the differences identified for null subjects, overt and demonstrative pronouns above.

6.2.5 A pronominal strength hierarchy for possessives?

As was mentioned above, Huhmarniemi and Brattico note that an overt possessive pronoun can access the context in finding its correlate, while for a phonetically null possessive, i.e. cases where only the possessive suffix appears, the contextual reading is much more restricted, in accordance with the antecedent condition for null pronominals in (43). The intuition is corroborated by further data. First, consider (44):

(44) Nadezdalla ja Marialla on ollut viime aikoina paljon erimielisyyksiä.
"Nadezda and Maria have had many disagreements lately."

a. Viimeisimmän riidan seurauksena Nadezda perui
latest-GEN argument-GEN result-ESS Nadezda cancelled
keikkansa.
gig-ACC.3SG.POSS

b. Viimeisimmän riidan seurauksena Nadezda perui hänen
latest-GEN argument-GEN result-ESS Nadezda cancelled his/her
keikkansa.
gig-ACC.3SG.POSS

c. Viimeisimmän riidan seurauksena Nadezda perui tämän
latest-GEN argument-GEN result-ESS Nadezda cancelled DEM-GEN
keikan.
gig-ACC
"Because of the latest argument, Nadezda cancelled her gig."

In the sentences (44a-c), there is a c-commanding antecedent, *Nadezda*, readily available for the possessive suffix. As expected based on the antecedent condition for null pronominals, in (44a) the possessive suffix can only refer to *Nadezda*. In (44b), where there is an overt possessive pronoun *hänen*, this pronoun and the suffix can be taken to refer to *Nadezda* or *Maria*; and as one informant reports, if more context is imagined, the referent can also be some other contextually determined referent. (44c) with the demonstrative pronoun differs from the other two cases in that it cannot appear with the possessive suffix on the head noun – this is true of NPs in general, i.e. when a noun has a genitive determiner that is not a possessive pronoun, the possessive suffix is ruled out (Huhmarniemi and Brattico, 2015).[89] In (44c), judgements vary, but it seems that the preferred correlate is determined contextually.

[89] This does not relate to definiteness or specificity, though: the third person pronoun *se* can be used as a semi-grammaticalized definite article, and the numeral *yksi* 'one' can be used as an indefinite article. Both determiners can appear equally with a noun marked by the possessive suffix:

(i) a. Nadezda perui sen keikkansa.
Nadezda cancelled it gig-ACC.3SG.POSS
"Nadezda cancelled that gig of hers."

Now, the question arises of whether the judgements differ in cases where there is no c-commanding antecedent. The examples in (45) correspond structurally to (42) above where the potential antecedent *Nadezda* is a genitive determiner and is hence so deeply embedded in the structure that it cannot c-command the possessive suffix:

(45) Nadezda puhuu usein Marialle siitä, millaisia vaikeuksia he ovat kohdanneet puolustaessaan naisten oikeuksia Venäjällä.
"Nadezda often talks to Maria about the difficulties they have encountered when defending women's rights in Russia."

a. Tässä on Nadezdan kirjoittama kappale kokemuksistaan
here is Nadezda-GEN written.MA/PTCP song experience-ELA-3SG.POSS
vankilassa.
prison- INE

b. Tässä on Nadezdan kirjoittama kappale hänen
here is Nadezda-GEN written.MA/PTCP song his/her
kokemuksistaan vankilassa.
experience-ELA-3SG.POSS prison-INE

c. Tässä on Nadezdan kirjoittama kappale tämän kokemuksista
here is Nadezda-GEN written.MA/PTCP song DEM-GEN experience-ELA
vankilassa.
prison-INE
"Here is a song Nadezda wrote about his/her experiences in prison."

In (45a), the possessive suffix takes *Nadezda* as its correlate, despite there being no c-command relation. In (45b), with an overt possessive pronoun, the preferred correlate is either *Nadezda* or *Maria*. With the demonstrative pronoun in (45c), judgements vary again: here it can be taken to refer to *Nadezda* or another contextually determined person.

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b. Nadezda perui yhden keikkansa.
Nadezda cancelled one gig-ACC.3SG.POSS
"Nadezda cancelled one of her gigs."/ "Nadezda cancelled a gig of hers."

Based on this mini empirical survey, it would seem that the overtness or nullness of a possessive pronoun interacts with the referent of the possessive suffix in a way that tallies with the null pronoun data above. The case of the demonstrative pronoun here is not as clear, largely because it is incompatible with the possessive suffix, meaning that it varies with the null and overt possessive pronouns in ways other than just pronominal strength. The emerging hierarchy is schematized in Figure 3:

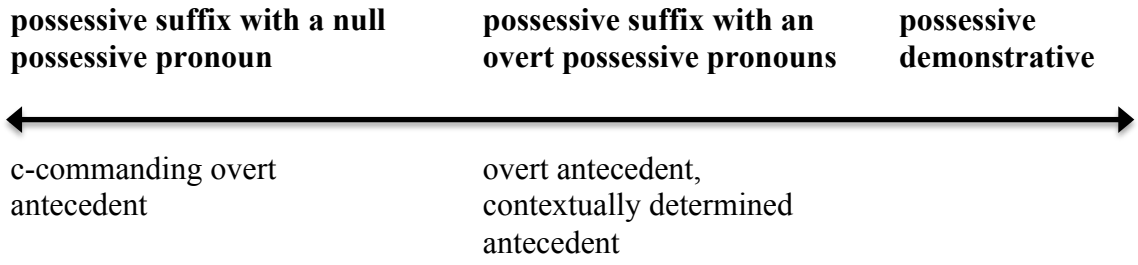

Figure 3. A hierarchy of third person possessive constructions in Finnish and available antecedents

Here, the association of a third person possessive suffix with a null possessive pronoun with an overt, c-commanding antecedent corresponds to Brattico and Huhmarniemi's syntactic strategy for determining the antecedent for null pronominals. Their vaguely defined access to the discourse as a last resort, on the other hand, is not syntactically encoded, but is rather a non-syntactic pragmatic phenomenon. In Figure 3, it corresponds to the gradient shift from c-commanding overt antecedents as the only available type of antecedent towards contextually determined antecedents being allowed as well for overt possessive pronouns and possessive demonstratives.

Hence, the possessive pronoun data show that the pronominal strength hierarchy in Finnish has wider repercussions than the case of null subjects alone, also suggesting that the case of possessive suffixes should be taken into account in further work on null subjects.

However, possessive pronouns are not the only addition to Patel-Grosz's array of hierarchies: casting the cross-linguistic net wider reveals that non-pronominal categories, too, can be employed to take on pragmatic functions in a scalar way.

6.3 Case marker drop in Japanese: a pragmatic case for case

Japanese has the status of the prototypical radical pro drop, or discourse pro drop, language. The widespread phonological nullness has attracted much research, and has been linked, most prominently, to the presence of bare NP arguments (Tomioka, 2003), the absence of agreement (Saito, 2007), and agglutinative morphology on pronouns (Neeleman and Szendrői, 2007). However, nullness goes further than the non-pronunciation of entire arguments, even if these phenomena have been left in the shade of radical pro drop. The focus here will be on case marker drop:[90] in Japanese, it is possible to drop the nominative and accusative case particles, *ga* and *o*.

A brief note on the functions of *ga* – when it is spelled out – is necessary here. Kuno (1973) identifies three uses of the particle *ga*. First, it can be used for neutral descriptions of actions or temporary states. This so-called descriptive *ga* can only occur with the subject of action verbs, existential verbs, and (nominal) adjectives representing changes of states:

(46) John ga hon o yonde iru
John NOM book ACC reading is
"John is reading a book."

(from Kuroda, 1970:81)

As was noted in chapter 4, in contrast to using the topic marker *wa*, (46) reads as a statement referring to a state of affairs directly without making any of its constituent entities an underlying carrier, or subject, of a certain property, or predicate.

Ga can also be used for exhaustive listing (Kuno, 1973):

[90] I use the term 'case marker drop' here as it is the most widely used option. However, as will appear below, this is something of a misnomer for the phenomenon, as the elements dropped have a more pragmatic function than case markers in the traditional sense, and it can also be argued that the non-marking has an important pragmatic function in itself, and does not correspond to the elision of an underlying marker.

(47) John ga gakusei desu.
John NOM student COP
"(Of all the people under discussion) John (and only John) is a student."
"It is John who is a student."

(from *ibid.*:38)

In this case there are no restrictions on the type of subject *ga* can attach to.

English allows an exhaustive listing interpretation not only of the subject but also of other parts of the sentence, determined by the placement of stress. Even so, only one major constituent in a given sentence can receive an exhaustive listing interpretation; the same considerations seem to hold with respect to Japanese. However, when there is a *ga*-marked constituent present that can be interpreted only as exhaustive listing, this constituent takes precedence and no other elements can be given that interpretation. Also, when there is more than one NP-*ga* in a sentence that can potentially receive an exhaustive listing interpretation, the leftmost one takes precedence and the rest are given a neutral description reading.

A final use of *ga* is object marking:

(48) Boku wa Mary ga suki desu.
I TOP Mary NOM fond COP
"I like Mary."

(from *ibid*.:38)

Ga can mark the object of stative verbals, i.e. a handful of transitive verbs (*wakaru* 'understand', for instance), all transitive adjectives (such as *tabetai* 'be anxious to eat'), and all transitive nominal adjectives (for example, *negate* 'be bad at'). This objective use of *ga* does not have an exhaustive listing connotation.

Returning to case marker drop, I will first introduce previous work on the phenomenon, showing how it cannot be accounted for in purely structural terms. Based on the review, I will argue for a scalar position, showing how case marker drop forms a hierarchy with different degrees of ellipsis with respect to information-

structural considerations. Although by no means a fully-fledged account, it thus functions in much the same way as differences in pronominal strength with respect to topicality in Patel-Grosz's (2018) hierarchies, highlighting yet another point of cross-linguistic variation in encoding discourse-related information. Finally, I will address the question of what light the pragmatic functions of the case markers shed on how they are encoded on nominals.

6.3.1 Japanese case marker ellipsis

In Japanese, both the so-called nominative marker *ga* and accusative marker *o* can be elided. This is illustrated in (49):

(49) a. Boku {ga/ ∅} kono hon {o/ ∅} katta.
I NOM this book ACC bought
"I bought this book."

b. Boku {ga/ ∅} gohan {o/ ∅} tabe-tai.
I NOM meal ACC eat-want
"I want to eat."

(Kuno, 1972, 1973 cited in Lee, 2002:684)

Although optional (Lee, 2002), case marker ellipsis is highly characteristic of spoken Japanese, to the extent that utterances with it are judged more natural than those without (Hasegawa, 1998 cited in Takano, 1998: 290), and the constant inclusion of particles does not reflect normal, unmonitored conversation (Jorden and Noda, 1987 cited in *ibid*.:290).[91]

[91] Hoye (2017) notes that the non-expression of the case particles differs from languages with morphological case marking systems, such as Latin, Russian, Turkish, and, indeed, Finnish. Here, the individual case endings are an integral part of the noun, and it is not conceivable to represent a noun without case. However, it is unclear why a similar effect as in Japanese could not be achieved by simply using the unmarked form, typically the nominative singular, where usually a more marked form would be expected. How and whether the morphological make up of words affects the possibility of having case marker deletion is a relevant question (especially considering Neeleman and Szendrői's

As such, case marker drop is, observationally at least, a discourse-related phenomenon. It is therefore not surprising that the majority of research has focused on the pragmatic conditions of its licensing. However, some early approaches to the phenomenon tackled it from a formal syntactic perspective. I will first review a prominent attempt at syntactic explanation, showing that it cannot ultimately capture the data and that a more pragmatically informed analysis is, indeed, needed. I will then consider various pragmatic accounts of dropping both *ga* and *o*, capitalizing on notions such as topicality, focushood, and pragmatic markedness.

Central to the discussion of the syntactic conditions for case marker drop is the distinction between *ga* and *o* as well as different argument structures of the verb. Kanno (1996) argues that the accusative case marker *o* can be freely dropped in non-stative transitive clauses, but the nominative case marker *ga* cannot. This is illustrated in the contrasts in (50) with a declarative matrix clause and (51) with a relative clause:[92]

(50) a. * John ∅ sono hon o yonda.
John that book ACC read

b. John ga sono hon ∅ yonda.
John NOM that book read
"John read that book."

(51) a. * [[Kono hito ∅ yonda] [hon]] (desu).
this person read book COP
"(This is) the book the person read."

(2007) discussion of agglutinative morphology as the licensor of discourse pro drop), but one which I leave to the side here.

[92] The relative clause context is relevant here as the topic marker *wa* cannot occur in embedded contexts. This is one way of ensuring that the deleted element is actually *ga* and not *wa*.

b. [[Sono hon ∅ yonda] [hito]] (desu).
that book read person COP
"(This is) the person that read the book."

(from *ibid*.:319)

Also Sato and Tam (2012) note that *ga* is comparatively harder to elide than *o*, causing acceptability to degrade in most transitive clauses when only *ga* is elided and *o* is intact:

(52) a. ?? Taro ∅ Jiro o ijimeten no michatta.
Taro Jiro ACC bully COMP saw
Lit. "(I) saw that Taro was bullying Jiro." ("I saw Taro bullying Jiro.")

b. ?? Taro ∅ sake o nonden no michatta.
Taro alcohol ACC drink COMP saw
"(I) saw that Taro was drinking alcohol."

(from *ibid*.:445)

(52b) shows that the contrast is not due to pragmatic plausibility: while in (52a), both the agent and the patient are human and hence there is no pragmatic bias as to who bullied whom, in (52b) there is only one pragmatically felicitous interpretation, but this does not affect the acceptability of having a null case marker.

Fukuda (1993), in an analysis typical of the Government and Binding era, takes the asymmetry between *ga* and *o* deletion to be regulated by the Empty Category Principle, i.e. the idea that non-pronominal empty categories must be properly governed. While the object is lexically governed by the verb, the subject is not, resulting in the asymmetry between *ga* and *o*.

It follows that if an element is introduced into the structure that governs *ga*, dropping the marker becomes acceptable. According to Kanno and Fukuda, this is the case when the sentence has a sentence-final particle:

(53) John ∅ sono hon o yonda yo.
John that book ACC read *yo*
"John read the book."

(from Kanno, 1996:320ff.)

Fukuda argues that the acceptability follows as the empty case position where *ga* would occur is governed by the particle. The sentence-final particles are assumed to head CP and to qualify as proper head governers for the empty category, mirroring how the C in Germanic and Romance was analyzed in the Government and Binding era. Of course, this only serves to formalize the empirical observation but does not go any way towards explanatory adequacy from a modern perspective (as well as being at odds with the higher Grounding Layer position argued for the particles in the previous chapters); however, given the problems with the empirical observation itself, as discussed below, I will not pursue the formalization further here.

There is also a contrast between *ga* attached to the subject of a non-stative verb and *ga* as the complement of a stative verb, or so called objective *ga*. The latter can be deleted even when there is no sentence-final particle present:

(54) John ga kankokugo ∅ dekimasu.
John NOM Korean can.do
"John knows Korean."

(from Kanno, 1996:328)

This follows from the ECP as the *ga*-marked complement of the verb is governed by the verb, just as *o*-marked complements with non-statives are (see above for Kuno's (1973) typology of *ga*-marking).

However, a purely structural analysis faces a number of problems, as argued by Sato and Tam (2012). First, the authors note that there are examples where both internal and external arguments can appear without markers, even in the absence of sentence-final particles:

(55) Taro ∅ sake ∅ nonden no michatta.
Taro alcohol drink COMP saw
"I saw Taro drinking alcohol."

(from *ibid*.:445)[93]

Furthermore, the acceptability of *ga*-deletion improves when the subject is de-focused. Consider (52a) in the context of a wh-question where the whole answer is in focus:

(56) Taro ga nani shiten no mitatte?
Taro NOM what do COMP saw
"What did you see Taro doing?"

Taro ∅ Jiro o ijimeten no michatta.
Taro Jiro ACC bully COMP saw
Lit. "(I) saw that Taro was bullying Jiro." ("I saw Taro bullying Jiro.")

(adapted from *ibid*.:446)

Subject marker drop is often acceptable with an intransitive verb, even when the verb is non-stative:

(57) Taro ga/∅ hashitteru no michatta.
Taro NOM run COMP saw
"(I) saw that Taro was running."

(from *ibid*.:445)

[93] Particle ellipsis is also possible in contexts where the matrix subject is not the speaker. My informant sees no difference between (55) and (i):

(i) Yuki Taro ∅ sake ∅ nonden no michatta.
Yuki Taro alcohol drink COMP saw
"Yuki saw Taro drinking alcohol."

The informant would prefer the marker *ga* to be present on *Taro*; however, this is not unexpected given the discussion above, and the crucial point is that they still accept the *ga*-less variant, and do not make a distinction in acceptability based on the matrix subject, thus ruling out at least some evidentiality concerns.

In addition, the claim that the presence of sentence-final particles licenses case marker drop has also come under criticism. In a study of naturally occurring conversational data, Hoye (2017) found that the ellipsis of *ga* does not necessarily seem to co-occur with sentence-final particles. Likewise, Lee (2002) notes that there are several instances where the omission of *ga* is acceptable in the absence of sentence-final particles:

(58) Aaa, ohuro no mizu ahure-tyatta.
oops bath GEN water overflow-ended-up
"Oops, the water in the bathtub ended up overflowing."
(from *ibid*.:690)

Instead of an ECP-based approach, Masunaga (1987, 1988 cited in Lee, 2002:689) argues that the sentence-final particles have the effect of focusing the verb and defocusing the subject; the argument then goes that whenever the pertinent NP is defocused, *ga* can be deleted. However, Lee notes that the same exhaustive listing reading is achieved both with and without the particle in (59):

(59) Taroo ga gakusei da (yo/zo/ze).
Taro NOM student COMP *yo*/*zo*/*ze*
"Taro is a student." ("It is Taro that is a student.")
(from *ibid*.:690)

Here *Taro* is focused, and does not undergo defocusing when a sentence-final particle is added. While the particle adds more emphasis to certain elements – in this case, *Taro* – it crucially does not automatically de-emphasize others.

Another pragmatic alternative regarding the sentence-final particles is Tsutsui's (1983 cited in Hoye, 2017:205) suggestion that *ga*-drop is more natural in sentences with these particles as the sentences involve the addressee more than their particle-less counterparts. However, why addressee involvement as such should function to license *ga*-drop remains unclear, and hardly offers a satisfactory explanation; furthermore, the particles cited in the data, as in (59), for instance, tend to be the ones that were classified as monopolistic or speaker-oriented in chapter 3.

A more plausible explanation is that of Kamio (1990 cited in Hoye, 2017:690ff.): it is rare to find utterances in ordinary conversation in Japanese that end simply with the main verbal element without a sentence-final particle. Sentences with sentence-final particles may thus sound more natural compared to ones without, and this may affect the acceptability judgements of Fukuda's data.

Based on the above discussion, it appears that the ECP-based approach cannot account for the data when cases are considered beyond those in Fukuda's (1993) and Kanno's (1996) original work. This leaves the stage to pragmatic approaches to case marker deletion: I will discuss these first with respect to *ga* and then with respect to *o*.

First, any discussion of *ga* has to take into account the different functions of the marker, as spelled out in Kuno's (1973) typology above. This is illustrated particularly clearly in an empirical study by Laleko and Polinsky (2016), showing that the distinction between the descriptive and exhaustive listing functions of *ga* is not only a descriptive tool but also psychologically real. Crucially, the neutral descriptive nominative case particle fulfills the grammatical function of establishing structural relations within a sentence, and is as such mediated within narrow syntax. The exhaustive listing *ga*, on the other hand, interacts with the larger linguistic context and expresses distinctions related to the information structure of the utterance, and is therefore similar to the topic marker *wa* in being linked to information at the level of discourse.

This tallies with the Syntax-Before-Discourse Hypothesis, according to which in second language acquisition (Pérez-Leroux and Glass, 1997; Polio, 1995; Rothmann, 2007, 2009 cited in *ibid*.:397) and adult L1 attrition (Sorace, 2004, 2011 cited in *ibid*.:397; Tsimpli, Sorace, Heycock and Filiaci, 2004) syntactic competence is acquired sooner and is more immune to attrition than discourse-pragmatic knowledge. Testing heritage speakers' and L2 learners' knowledge of topic and case marking in Japanese and Korean, Laleko and Polinsky found that the exhaustive listing marker is more difficult than the descriptive particle for these bilinguals. More generally, sentences involving the topic particle are more problematic for the speakers than the markers mediated within syntax. In addition to highlighting the importance of distinguishing the two functions of *ga*, this further shows that an account of the

conditions of *ga* marker deletion has to go beyond a simple structural analysis, where the factors licensing deletion are reduced to a syntactic configuration.

It should be noted here that these findings do not, at least at first sight, sit quite naturally with an approach advocating the formalization of aspects of discourse, such as the one argued for here. However, the two strands need not cancel each other out in principle: even if discourse-related information is syntactically encoded, it can be taken to be harder to process because of, for example, its association to the real world and the complexities this introduces. Furthermore, the observation that expressive and propositional meaning are distinct in how they are encoded in the brain was mentioned in chapter 2 with respect to Jay's (2000) work; however, this does not rule out the option of both being syntactically encoded.

Ono, Thompson and Suzuki (2000) echo the emphasis on the pragmatic relevance of *ga* and argue against treating *ga* as a marker of case or grammatical relations, as the traditional name 'nominative case marker' suggests. First, as noted above, the use of *ga* is highly marked in Japanese conversation, which is unexpected of a nominative or subject marker. Second, considering the distribution of *ga* with respect to the macro-roles of intransitive subject (S), transitive subject (A), and transitive object (O) – as outlined already in the above discussion of the syntactic behaviour of *ga* – does not support a grammatical marker analysis, either. *ga* tends to occur along with the S of intransitive predicates that serve to introduce or present a referent into the conversation. In contrast, it hardly ever appears on the A argument. This is partly due to the fact that both cross-linguistically and in Japanese, A typically expresses given information, and as such it is typically phonetically null in Japanese. Finally, in its objective use, *ga* occasionally attaches to O: again, this is not expected if *ga* is a straightforward nominative or subject maker. Hence distributional evidence also suggests that the presence of *ga* is determined by pragmatic rather than purely syntactic conditions.

While Laleko and Polinsky's and Ono, Thompson and Suzuki's work highlights the pragmatic nature of *ga* (in at least some of its functions), they do not go in depth into the question of *what* these functions are and how the overt marker compares to its null counterpart. A more elaborate analysis is that of Lee (2002). When a sentence has an

exhaustive listing interpretation, the subject NP is focused information and its exhaustive listing interpretation is assigned lexically by *ga*. As a result, *ga* cannot be deleted when it is used in this sense.

As for the occurrence of descriptive *ga*, this is tied to the information status of the NP that it attaches to, and lies on a continuum with argument ellipsis. According to Chafe (1994 cited in *ibid*.:698), the information contained in human consciousness can be categorized into three categories, instead of the binary distinction between Given and New: active, semi-active, and inactive.[94] Active information is equivalent to Given, and inactive corresponds to New. The intermediate category, semi-active information, includes referents that are accessible in the sense that they have been active at an earlier time in the discourse, are associated with an idea that is or was active in the discourse, or are linked to the non-linguistic environment of the conversation and have for that reason been peripherally active but not directly focused on. According to Lee, what can be phonologically deleted correlates with these categories. When the subject NP represents new and thus more important information, i.e. it is inactive, neither the entire NP-*ga* nor just the *ga* can be deleted.

(60) Q: Kinoo donna koto ga atta no?
yesterday what kind thing NOM existed Q
"What was happening yesterday?"

a. Kinoo tomodachi {ga/ *∅}/ *∅ asobi ni kita.
yesterday friend NOM play to came
"A friend came over yesterday."

(adapted from *ibid*.:695)

Here the inactive status of the subject is guaranteed by the question-answer context.

When the constituent is semi-active, *ga* deletion is possible.

[94] The idea that the accessibility of information should be encoded in a more fine-grained way is also reflected in Ariel's (1988) accessibility hierachies.

(61) Taroo {ga/ ∅} yatto dete-kita.
Taro NOM finally out-came
"Taro finally came out."

(from *ibid*.:698)

The adverb *yatto* 'finally' implies that the speaker was waiting for Taro to come out, and therefore the subject is not wholly new information.

An active constituent can be elided in full. As such, the deletion of *ga* is governed by the same pragmatic principles as full argument ellipsis; this allows one to establish a strength hierarchy akin to the one discussed with respect to Finnish above. Consequently, this raises the possibility that the phenomena targeted in Patel-Grosz's (2018) pronominal strength hierarchies can be encoded by non-pronominal strength hierarchies as well: in Japanese, the presence or absence of case marking in conjunction with full argument ellipsis would seem to serve a similar function as pronominal strength in Finnish.

Hoye (2017), however, notes that Lee's approach does not make watertight predictions regarding the phonological realization or non-realization of the argument and *ga*. Consider (62), from Hoye's conversational data:

(62) Kyoo aa tegami ga kita yatto.
today *aa* letter NOM came finally
"The letter has finally come today."

(from *ibid*.:207)

Here *tegami* 'letter' is taken to be semi-active. The adverb *yatto* 'finally' suggests that it is accessible in the discourse, even if it is not given: the speaker was waiting for the letter to arrive, and therefore it has been in the speaker's consciousness. As such, on Lee's scale, it would be expected to appear without *ga* rather than with it, as it does in the example.

However, it is not clear that Lee's framework should be regarded as a predictive one. Rather, it spells out when *ga can* be deleted; there are no circumstances under which

it *must* be null. A more pertinent issue with Lee's framework is that it considers phonologically null *ga* merely as deletion of the marker, and not as something that has an independent pragmatic function. Indeed, it is becoming increasingly clear that overtly realized and null elements are rarely formally identical (i.a. Kayne, 2006; Douglas, 2016).

Hoye's approach takes a different tack, opting for an 'addition analysis' in contrast to deletion: when there is no phonetically realized *ga*, there is no underlying representation of it either, and when *ga* is realized phonetically, it is added for pragmatic reasons. Null *ga* thus has clear, separate and independent pragmatic functions: this is reflected in Hoye's term *bare*-marking of *ga* instead of *ga* deletion. Hoye identifies two main contexts for the use of *bare*-marking of *ga*, with three more specific subcases each. First, *bare*-marking is employed when the speaker treats the referent as non-referential. This includes the subcases of when the referent is hypothetical, i.e. not concrete or not directly experienced, and interrogative clauses, when the speaker is not seeking for a specific answer, and when the referent is not fully referential. Consider (63):

(63) a. Kyuuni ne, nanka ano guai ga warui toka ii-dashite ne
suddenly *ne nanka ano* condition NOM bad QUOT say-begin *ne*
"All of a sudden, (my daughter) started saying that (her physical) condition is bad."

b. Guai ∅ waruku temo byooin ik-e-nai kara.
condition bad even if hospital go-able-not because
"Because even if a condition is bad, (one) is not able to go to the hospital."

(from *ibid*.:211)[95]

In (63a), *guai* 'condition' refers to a specific person's condition, and is *ga*-marked. In (63b), in contrast, *guai* refers to a hypothetical condition in a generic statement, and *bare*-marking is used. The link to genericity is not dissimilar to the generic function

[95] Hoye's examples are extracted from recordings of naturally occurring conversations.

of null pronouns; as was mentioned in the discussion of Finnish null arguments, in the absence of a specific antecedent, a null third person pronoun can be interpreted generically. The link between nullness, or the need for less elaborate expressions, and generic elements makes intuitive sense from a processing perspective.

The second basic rule states that *bare*-marking is employed when the referent is shared information between the speaker and addressee. In the first subtype, *bare*-marking is more likely to be employed when the referent is a familiar human referent to the speaker and addressee. In the second subtype, the referent is mentioned for the second time in the conversation, and in the third, the referent is clearly identifiable from the context or already understood by previous knowledge for both speaker and addressee.

(64) Aa, Hiro wa tsuuchihyoo ∅ sugokat-ta ne. Yokat-ta ne.
aa Hiro TOP grade report great-PST *ne* good-PST *ne*
"Speaking of (you), Hiro, (your) grade report was great. (It) was good."
(from *ibid*.:217)

In this case, the shared knowledge between the speaker and addressee indicates that *tsuuchihyoo* 'grade report' refers to the grade report that the addressee had received earlier.

Importantly to the discussion here, and to an understanding of the phenomenon in general, null marking on the subject appears to serve an independent pragmatic function, as does its overt counterpart. This has further implications for the nature of 'case marking' in Japanese: it goes beyond marking grammatical relations and functions simultaneously as a pragmatic device. It should be noted that this is not at odds with the hierarchical approach of Lee (2002): just as a null pronoun need not be merely a phonetically unpronounced variant of its overt counterpart, null case marking can be an independent entity as compared to a spelled-out marker. Furthermore, the functions of *bare*-marking identified by Hoye suggest that there are several phenomena that can be potentially captured through placing null case marking on a hierarchy with spelled out case markers and wholly elided arguments, just as

Patel-Grosz's (2018) pronominal strength hierarchies do not apply to only one phenomenon. I return to this imminently, after a note on *o*.

The so-called accusative marker *o* can equally be cast as a pragmatic device. Fujii and Ono (2000) identify contexts favouring its overt versus covert realization. First, overt *o*-marking has the function of helping the listener's attention activation: it directs attention to important information and facilitates the processing of information that may require additional cognitive effort from the listener. More specifically, overt *o* tends to appear on object NPs that are postposed or separated from the verb, clarifying the relationship among constituents. *o* is also realized when the object NP is contrasted with other entities,[96] when it indicates a topic that continues in the discourse,[97] and when it expresses newsworthy and crucial information.

Zero marking, on the other hand, occurs when the object does not require the listener's special attention activation to process information. More specifically, this is the case, first, when the particular referent of the NP is not identified, such as with interrogative and indefinite pronouns, lexicalized expressions, and NPs expressing a type or category, as well as cases where the identity of the referent is transparent, for example, from the immediate linguistic or extra-linguistic context. The second set of cases includes objects the referent of which is given and identifiable in the context, such as demonstrative pronouns. (65a) illustrates zero marking with an indefinite pronoun and (65b) with a demonstrative element:

(65) a. jiipan ka nanka sa koo nanka koo haku no
jeans or something *sa* uh something uh wear NMLZ
"(She) wears (his) jeans or something."

(from *ibid*.:13)

[96] The authors list repair situations separately, i.e. cases when the speaker directs the listener's attention to NPs that indicate correction or clarification. However, this is standardly taken to come under contrast, and matches Vermeulen's (2013) idea of contrastive focus appearing in correction contexts, as noted in chapter 4.

[97] Frascarelli and Hinterhölzl's (2007) Continuous Topic.

b. sonna no kite toire iku na
such NMLZ wear toilet go *na*
"Don't go to the bathroom wearing such a thing!"
(from *ibid*.:11)

Hence, as with *ga*, the presence or absence of *o* is determined by pragmatic, rather than strictly grammatical principles. Instead of clearly defined pragmatic functions, though, the presence of *o* is perhaps better analyzed as relating to more general processing requirements, appearing when additional processing is needed from the speaker, whether this be because of a non-canonical position of the object or some special pragmatic function, such as contrast. As Fujii and Ono note, *o* occurs when what is expressed in the direct object NP is salient in the discourse context. As such, o is a very underspecified marker: as noted in section 5.2 in the previous chapter, such underspecified, multifunctional markers that derive their more specific function from their syntactic distribution or relative position to other markers are typical of East Asian languages (Duffield, 2017). This characterization of *o* also has parallels with Differential Object Marking, a point to which I return below in section 6.3.3.

What unites the discussions of *ga* and *o* as an umbrella concept is the notion of markedness: the general idea that the so-called case markers are used when the constituents are somehow marked, or untypical subjects or objects, is summarized in Shimojo's (2006) general approach to null versus overt markers. According to Shimojo, overt *ga* and *o* are associated with the identifiability of referents, thus exhibiting a specific or marked function, involving a shift of attention to a newly identified referent. The absence of particles, in contrast, exhibits more general and unspecified functions, such as sameness with previously given referents. As noted above, case marker drop forms a hierarchy akin to those of Patel-Grosz with wholly null and wholly overt arguments. In Shimojo's markedness terms, the hierarchy is schematized in Figure 4:

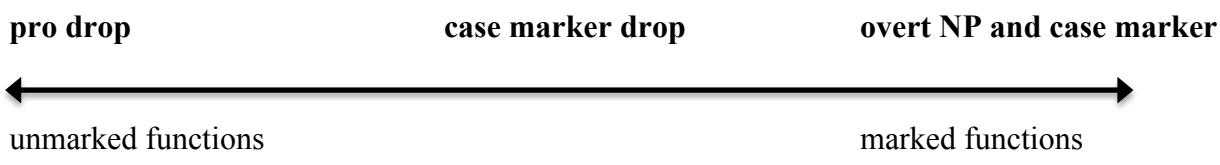

Figure 4. A hierarchy of nullness in Japanese

The more specific functions discussed by Fujii and Ono (2000), Lee (2002), and Hoye (2017) can then be mapped onto the markedness continuum; non-referential and active referents, for instance, are less marked than specific and inactive rerefents. What is crucial here is how the different degrees of nullness function in relation to each other: essentially, dropping a case marker contrasts both with wholly null and wholly overt arguments, and this allows its pragmatic function to be mapped onto different functions, forming a scale according to their markedness. As such, the model parallels those proposed for the Finnish pronouns and possessive structures in Figures 2 and 3 above. Of course, while the hierarchy addresses the pragmatics of case marker drop, it remains silent on how they are encoded on nominals. This is what I turn to in the remainder of this chapter.

6.3.2 A note on nominal structure

Now, it has been established that the so-called case markers in Japanese go well beyond marking grammatical relations, and that understanding their presence or absence should incorporate pragmatic information as well. A very much related, but not the same, question is how these markers are actually encoded in the grammar on nominals. To highlight the issues at stake here, I will do a diversion into Korean and case stacking; while case stacking does not occur in Japanese, Korean case stacking is conceptually similar to the elision of particles, in that here, too, so-called case markers would seem to take on, at least in part, a more discourse-related function beyond just marking grammatical relations. As such, a discussion of the Korean phenomenon can shed light on the nature of the so-called case markers in Japanese.

With certain types of predicates, Korean allows more than one case morpheme on a single NP in a simple sentence. Consider the set of examples in (66):

(66) a. Nay-ka paym-i mwusepta.
I-NOM snake-NOM fearful

b. Na-eykey paym-i mwusepta.
I-DAT snake-NOM fearful

c. Na-eykey-ka paym-i mwusepta.
I-DAT-NOM snake-NOM fearful
"I am afraid of snakes."

(from Schütze, 2001:194)

In (66a), the canonical subject *nay* 'I' is marked with the nominative *ka*, and in (66b) it is marked with the dative particle *eykey*: these two options are known as case alternation. (66c) illustrates the phenomenon of case stacking: both the dative *eykey* and nominative *ka* appear on the same constituent, giving *na-eykey-ka*.[98] Case stacking can also be found on objects with the so-called accusative marker *lul*.

According to Schütze (2001), the presence of case stacking is linked to the relevant constituent being in focus. Case stacking is argued to be possible only in focus environments: it can occur on wh-phrases, on answers to subject wh-questions, in correction contexts, and with overt focus markers such as 'only'. Multiple *ka*-stacked constituents in a single sentence are also possible, which is expected given Korean's status as a multiple focus language. Furthermore, *ka*-stacking is obligatory on the complement of the negated copula *anila*. This follows if focus marking is triggered by the presence of negation; Horvath (1995 cited in *ibid*.:203), for example, argues that Neg is a focus assigner in Hungarian. Similar facts can be seen to hold with respect to objects with stacked accusative case with the marker *lul*: stacking is possible, for example, on the answer constituent of goal wh-questions, and multiple stacked *lul*s are possible when multiple foci are present.

This distribution leads Schütze to analyze the *ka* and *lul* markers as focus markers. Support for the status of these particles as focus markers comes from their interaction with the particle *nun*. *Nun* can signal both topic and focus, and it shares the same slot with *ka* and *lul* in the morphosyntax of Korean nominals (along with *to* 'also' and

[98] It should be noted that native speaker judgements are notoriously variable, with many speakers not accepting case stacking (Schütze, 2001). Furthermore, as with Japanese case marker drop, Korean case stacking is much more natural in colloquial speech (Levin, 2017), as expected from markers the function of which is strongly tied to pragmatics.

(i)lato 'even', both focus-related elements).[99] Given the shared position, the particles share a certain range of semantic functions as the appearance of one on a given NP will block the appearance of the others. This means that (so-called) case features carried by *ka* and *lul* are not visible on NPs marked for topic or focus by *nun*, so that in situations where case marking is crucial for making the meaning clear, topichood and focushood have to be expressed without *nun*, perhaps using prosody, in which case *ka* and *lul* will appear in topic and focus environments. This makes the association of *ka* and *lul* with discourse-related notions more than purely accidental.

The choice between *ka* and *lul* as the relevant focus marker follows from the assumption that if a constituent XP can be marked as topic or focus by a case particle, the particle will correspond to the case assignable by the XP's focus- or topic-licensing head, i.e. V or I. Crucially, though, the stacked *ka* and *lul* do not occur in case-checking positions, i.e. specifiers, but in focus positions, i.e. in adjoined positions. Schütze adopts a view according to which a focus feature must be licensed by a head, making focus assignment very similar to case assignment. This allows the markers to remain separate from case functions, even if in a stipulative way: Korean thus has both non-case and case *ka* and *lul*, differentiated only by the stipulation that the former occurs in an adjoined and the latter in a specifier position.

A problem with Schütze's proposal stems precisely from this similarity of case and focus markers. As Yoon (2004) notes, the relevant markers are argued to express either case *or* focus features, rather than expressing both fusionally.[100] First, given

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[99] Korean is assumed to have a number of post-nominal particle slots. Each slot can only contain one particle at a time, and assumptions about which particles share the same slot are based on co-occurrence restrictions.

[100] Of course, haplology could be at play here. This cannot be ruled out as the only instances of stacking where two identical case markers might be expected involve the honorific nominative marker as the first case, and standard *ka*/*i* as the second one:

(i) Sensayngnim-tul-kkeyse-man(-i) kulen il-ul hasipnita.
teacher-PL-HON.NOM-only(-NOM) that.kind work-ACC do
"Only teachers do such work."

(from Sells, 1995 cited in Schütze, 2001:201)

that V and I are taken to license case, focus and topic in exactly the same way, there is a systematic three-way ambiguity for *ka* and *lul*, an obviously theoretically unparsimonious solution. Second, the slot occupied by *ka*, *lul,* and *nun* is actually less semantically coherent than Schütze suggests. The slot also hosts the genitive marker and the verbal copula (Yu-Cho and Sells, 1995 cited in *ibid*.:17), which are not focus-related. Furthermore, it is not obvious that *nun* actually encodes focus. Rather, it expresses thematic and contrastive topics, and the semantics or pragmatics of the latter necessarily involves focus; in a series of NPs marked with *nun*, all but the first will necessarily receive a contrastive reading. The distinct interpretations of *nun* are thus accounted for in terms of the syntax and semantics, without assuming that the marker itself is ambiguous. Hence, there is less of an argument for a focus-related slot in Korean nominal morphology. How much of a problem this is, though, is not obvious: the observation remains that *ka* and *lul* cannot co-occur with *nun*, and as such it is expected that they may take on some of the discourse-related functions associated with *nun* in certain contexts.

A more pertinent problem for analyzing *ka* and *lul* as focus, rather than case markers, is that they can be shown to trigger phenomena associated with case markers. Levin (2017) shows that elements bearing stacked case fulfill several diagnostics for case markers, including permitting Q-float, as well as triggering subject honorific agreement and plural copying (a concord process realizing plural morphology on non-plural elements in the VP; below, on the adverb *ppalitul* 'quickly'). The phenomena are illustrated in (67a-c), respectively:

(67) a. Haksayngtul-hanthey-ka ton-i seys-hanthey-ka philyohata.
students-DAT-NOM money-ACC 3-DAT-NOM need
"Three students need money."

b. Kim-sensayng-nim-kkey-ka Swuni-ka philyoha-*(si)-ta.
Kim-teacher-HON-HON.DAT-NOM Swuni-NOM necessary-*(HON.SUBJ)-DECL
"Professor Kim needs Swuni."

However, Yoon's criticism does not stand or fall based on whether haplology plays a role, as there are other arguments to be made against Schütze's account.

c. Kyosumin-tul-kkeyse-man-i ppali-tul kasiessta.
professor-PL-HON.NOM-only-NOM quickly-PL left
"Only the professors left quickly."

(from *ibid*.:493)

Levin takes this to show that the markers are fundamentally case markers, and that their discourse-related properties arise from other considerations. To account for this, Levin develops a mechanism of multiple case assignment in a Dependent Case model. The core idea is that a nominal is evaluated for case in every phase it occupies; this follows from adopting Fox and Pesetsky's (2005 cited in *ibid*.:456) view that phasal spell-out fixes linear order but does not render the spelled-out elements inaccessible to subsequent syntactic operations. Hence, the moved nominal retains the case specification established in a lower phase and can receive case again in the higher phase. Thus, a nominal that has undergone movement across a phase boundary can be spelled out with multiple case values, yielding case stacking.

Of course, as was shown in the examples in (66), case stacking is optional, and instead of realizing two cases, the two can alternate. To account for this, Levin proposes a Generalized One Suffix Rule, which stipulates that all but one case suffix should be deleted from a given nominal (based on Pesetsky, 2014 cited in *ibid*.:479-480). However, in focus contexts, this rule can be overridden, thus capturing the association of case stacking with focus. I will not delve into the theoretical proposal any further here; the crucial point with respect to the discussion about Japanese is that the discourse-marking functions of case markers can arise from an interaction with independent, traditionally more grammatical principles.

This is the spirit of Heycock's (2008) analysis of *ga*: while *ga* is related to focus, and while the exhaustive listing reading of *ga* is an instance of narrow focus, it does not follow that *ga* itself is a focus marker, but only that *ga* is compatible with being contained in a focused constituent. The main argument against *ga* as a pure focus

marker is that, despite not being a prototypical subject marker as shown above, it does not occur freely on constituents other than the subject.[101]

Instead, *ga* encodes information structure indirectly. Heycock capitalizes on the idea that a *ga*-marked subject is, by definition, not *wa*-marked. The analysis builds on four further assumptions: first, topic nominals, but not predicates, must be *wa*-marked. Second, every sentence, but not every clause (where sentences are larger units than clauses; clauses are sub-parts of sentences. Heycock does not give a formal distinction of the terms.), must have a topic, and this topic may be either overt or null. Third, topics and foci are disjoint. Finally, stage-level, but not individual-level predicates, have a Davidsonian event argument that is available to function as a topic.

Consider (68):

(68) John ga kita.
John NOM came
"John came."

(from *ibid*.:61)

Here, the sentence has a stage-level predicate and it can have a Davidsonian event argument as its topic. This means that either the subject or the whole clause can function as the focus.

In (69), on the other hand, the predicate is individual-level, and there is no Davidsonian argument available:

(69) John ga kasikoi.
John NOM smart
"John is smart."

(from *ibid*.:61)

[101] Heycock evokes other arguments against a focus-only analysis of *ga*, but these are levelled specifically against Diesing's (1988 cited in *ibid*.:59-60) approach to *ga* as a counterpart of the English focus projection and A accent. As these arguments pertain only to Diesing's specific analysis and are as such theory-internal, I will not discuss them further here.

Therefore, the only available topic is the predicate; for the subject to be the topic, it would have to be marked with *wa*. Hence, only the subject can be focused, meaning that wide focus of the entire sentence is excluded and the subject must carry an exhaustive listing reading.

Heycock does not discuss the status of unmarked constituents nor the marker *o*. The approach is, however, amenable to capturing the phenomenon of case marker drop. All that needs to be incorporated into the analysis is a mechanism that allows *ga* – and *o* – not to be realized when the relevant constituent is not narrowly focused. This mechanism would then correspond to the hierarchy of nullness and markedness scale proposed in Figure 4 above. Thus, the nature of *ga* and *o* as case, rather than purely pragmatic, markers can be retained, while providing a principled account for their association with pragmatic functions.

6.3.3 A final cross-linguistic note

Japanese is not isolated in using markers of grammatical relations for pragmatic purposes. In addition to having case stacking, Ahn and Cho (2007) note that Korean also allows case markers to be omitted in colloquial speech. The phenomenon is similar to Japanese in that the occurrence rate of bare NPs in complement position is higher than that of bare NPs in subject position (H. Lee, 2006b,c in *ibid*.:57). The subject normally occurs with *ka* (or its phonologically conditioned allomorph *i*) when the speaker conveys the meaning of 'X (and only X)' or 'It is x that…'. The object occurs with the *lul* marker mostly when a contrastive focalization or emphasis is given to it.

However, the two languages also show differences in the function of their pragmatic case markers. As argued above, in Japanese a matrix sentence with a stative or copula head predicate must have its subject narrowly focused if it is case-marked (Sato and Tam, 2012):

(70) Taro ga Jiro no otooto nanda.
Taro NOM Jiro GEN brother be
"It is Taro who is the brother of Jiro."

(from *ibid*.:452)

In Korean, in contrast, the subject marked with *ka* does not have to have a narrow focus in statives:

(71) Hyeonsy-ka Cheolsu-ui tongsaeng ieyo.
Hyensu-NOM Cheolsu-GEN brother be
"Hyensu is the brother of Cheolsu."

(from *ibid*.:452)

More broadly speaking, the patterns found in Japanese (and Korean) can be compared to differential object marking (DOM) (Kurumada and Jaeger, 2015). The types of objects with case marking in DOM systems tend to correspond to the ones that are more likely to be marked in an optional system like that in Japanese: objects with typical referential properties, such as inanimate and indefinite objects, can be unmarked, while atypical objects, such as animate and definite ones, tend to be marked for case. The same tendency for marking the atypical holds for differential subject marking as well. Kurumada and Jaeger argue that this link between gradient preference patterns in production – case marker deletion in Japanese – and grammatical patterns – DOM systems – supports the idea that at least some cross-linguistic generalizations have functional motivations.

The idea is supported empirically as well. In an experiment by Fedzechkina, Jaeger and Newport (2012 cited in *ibid*.:170), monolingual English speakers learnt an artificial language that resembled Japanese in having SOV and OSV orders and optional case marking. The input language did not, however, condition case marking on the animacy of arguments. However, the learners would preferably mark animate objects and inanimate subjects compared to inanimate objects and animate subjects, inducing a preferential case marking pattern reflecting a DOM system.

This comparison brings the case marker deletion in Japanese in line with DOM, a perspective that is ignored in much of the literature on the phenomenon. More elaborate comparative studies of the two can therefore shed further light on the nature of case marking in Japanese.

Another avenue for future research, as identified by Sato and Tam (2012), is a comparison with Ryukuan, the only language known to be historically related to Japanese. Ryukuan has both case markers and a dedicated focus marker *du*. The question arises whether eliding the case marker contributes to focus here, too, or whether it is reserved for noting purely grammatical relations.

This all plays into the broader question of what elements languages can employ to express pragmatic notions, and to what extent these are better seen as gradient phenomena, rather than something that is subject to strict structural conditions; or, cast in a perspective with more emphasis on speaker agency, to what extent speakers have the freedom to choose which structures they use in a given context. The above discussion has shown that null subjects and case marker drop in Japanese are such phenomena: where purely syntactic analyses fail to account for their distribution, hierarchies of elements of different strengths – here, the one proposed in Figure 4 – may shed light on their behaviour, very much in line with Patel-Grosz's (2018) main thesis.

6.3 Conclusions

To return to Patel-Grosz's pronominal hierarchies, the hypothesis was that where there are deficits in understanding anaphora – an apparently syntactic phenomenon –, one way forward is to capitalize on the scalar nature of pronominal systems. This chapter has shown that the intuition is a fruitful one, and that it can be employed in cases beyond anaphora and pronouns. It was shown for Finnish that degrees of nullness correlate with topicality, much in line with Patel-Grosz's pronominal work. The discussion of Japanese then took this further, showing that a conceptually similar scalar approach can be used to understand Japanese case marker drop and how it connects with the information status of constituents.

The themes here contrast with the previous chapters in that they have been very much concerned with notions pertaining to the C layer, such as topicality and focus, instead of the separate Grounding Layer. However, the difference in structural focus should not mask the common denominators; rather, the discussion here builds a broader picture of discourse sensitivity and the sorts of notions that should be taken into account in discourse-related syntax in general. First, gradience emerges as a crucial notion both for the phenomena discussed in the previous chapters and the ones discussed here. As was noted both with respect to Finnish null elements as well as case marker and full NP drop in Japanese, the middle cases on scales seem to be especially gradient. This was also observed, for example, with respect to the Response Layer, where *-hAn* and *-pA* in Finnish were shown to induce changes on the Call on Addressee in a gradient rather than absolute manner, and where the distinctions between question types in Japanese were shown to be very fine-grained. Second, the above discussion raises questions of the ways in which elements may be unspecified. In the previous chapters, I have argued that the discourse particles in Finnish and Japanese are underspecified in the key sense of the USH framework, i.e. they gain their more specific functions from their association on the syntactic spine in both relative and absolute terms. Here, on the other hand, the relative aspect comes to the fore in a slightly different sense: the functions of the Finnish null pronouns and the different degrees of nullness of Japanese nominals are derived through their relation to other elements on scales and the consequent internal contrasts. So, for units of language that form hierarchies with other relevant units, it is not just their relation to their syntactic spine that determines their interpretation – à la the USH – but crucially their relation to other elements on the hierarchy.

Of course, Finnish null subjects and possessive suffixes as well as Japanese case marker drop warrant a much more thorough analysis than can be presented here. What is clear, though, is that any such analysis will have to take seriously gradient and relative effects in syntax.

Chapter 7 Conclusion: towards a truth universally acknowledged

The discussion in the four previous chapters has aimed to make a contribution to the growing work on speaker and addressee syntax: what has been previously argued for based on imperatives, temporal relations, and evidentiality, among many other things, is corroborated here with evidence from Finnish and Japanese. In doing so, the phenomena discussed have also offered material for reconsidering the structures of the two languages.

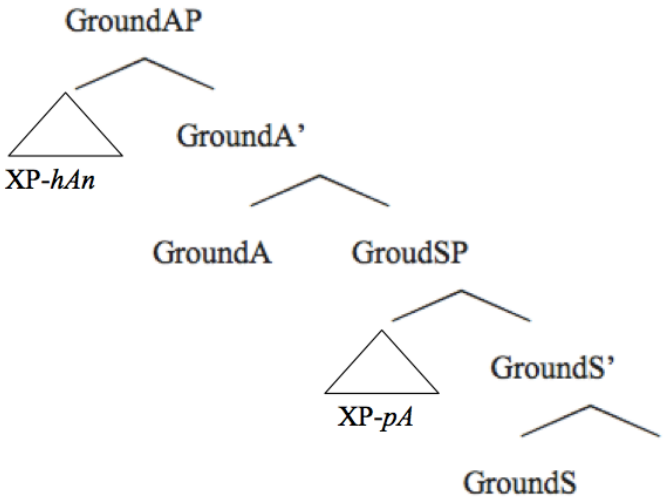
In accordance with the USH (i.a. Wiltschko, 2014; Wiltschko and Heim, 2016; Thoma, 2016; Heim and Wiltschko, 2017) I have argued for two additional speech act participant layers above CP: the Grounding and Response layers, with projections encoding the speaker, addressee, and features of their interaction capturing the Call on Addressee. Evidence for the former structure was derived based on two types of evidence. First, I considered the interpretation of a selection of Finnish and Japanese discourse particles – this reflects the USH notion that the absolute position of certain elements in the structure is identified through their meaning. Then, I turned to the differing behaviour of these particles from other, non-discourse participant -related phenomena under embedding – this determines the relative position of the particles, again following the USH.

The absolute position was the topic of chapter 3, where I focused on the functions of the Finnish second position clitics *-hAn* and *-pA* and the Japanese sentence-final particles *ne*, *na*, *yo* and *wa*. There, I argued that *-hAn* is addressee-oriented and *-pA* speaker-oriented, and that traditional analyses of the Finnish left periphery postulating a single CP projection cannot capture these functions nor the co-occurrence restrictions observed with these particles. Based on evidence from the scope relations of these particles and different types of adverbs (following Thoma's (2016) work on Miesbach Bavarian), I made a preliminary case for a higher Grounding Layer, split into an addressee-oriented GroundAP and speaker-oriented GroundSP, in the Finnish left periphery. I then showed that the particles mirror the behaviour of the so-called question particle *-kO* (Holmberg, 2014) when it comes to their association with their host phrase, and that, consequently, they should be analyzed as attaching to their hosts

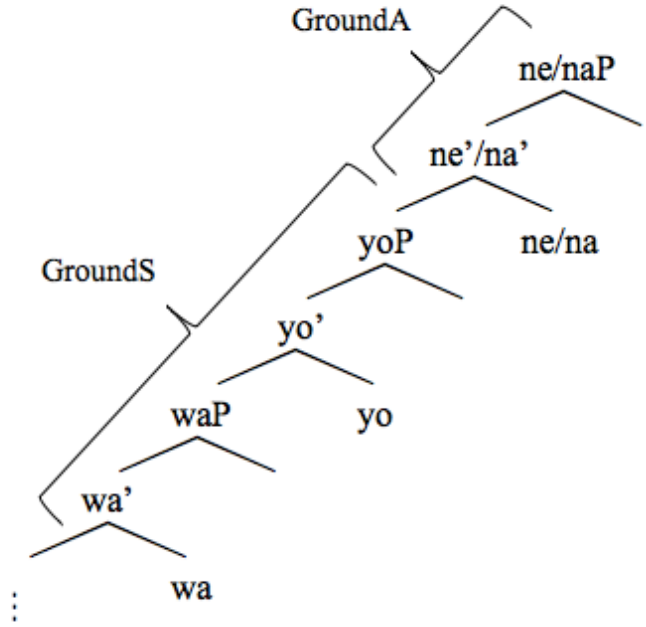
in the host's base position rather than merging directly into the Grounding Layer as clausal heads.

For Japanese, I showed that recasting Saito and Haraguchi's (2012) and Saito's (2013) cartographic approach to *ne*, *na*, *wa* and *yo* – where these particles occupy separate projections in a highly articulated right periphery – in light of Ogi's (2017) pragmatic analysis of Japanese particles as either monopolistic, i.e. speaker-oriented, or incorporative, i.e. addressee-oriented, allows one to group the particles as manifesting speaker- and addressee-oriented layers on the syntactic spine. As a point of cross-linguistic variation, the Japanese Grounding Layer thus emerges as more articulated than the Finnish one: in the former, the speaker- and addressee-oriented layers each have multiple projections to host different particles that can be shown to be formally distinct, whereas in the latter GroundAP and GroundSP are both constituted of a single projection. The relevant structures are illustrated here as (1) and (2):

(1)



(2)



The notation for the Japanese projections in (2) reflects the particles' unique functions, as established by Ogi (2017). Given that discourse-related meanings are notoriously vague, I adopt this as the most informative way of representing the structure, rather than attempting to translate the particles into something else. Further cross-linguistic comparisons could, however, shed light on the types of features the Japanese particles share with elements in other languages; this could point towards a typology of more specific feature distinctions under the more general speaker and addressee umbrella.

Another point of cross-linguistic variation emerges from a discussion of the particles in self-talk contexts. There, I showed that for addressee orientation in Finnish, just the feature [+addressee] is enough as the addressee need not be separate from the speaker. In the case of Japanese *ne* and politeness marking, on the other hand, it is necessary to tap into more features under the [participant] category: the addressee requires a [+addressee, -speaker] specification, as the addressee cannot simultaneously be the speaker. This further reflects the emerging picture of Japanese drawing more specific distinctions in its speaker- and addressee-related syntax.

In chapter 4, I turned to the relative position of the particles, showing that they behave differently from the expression of contrast in systematic ways in both languages. More specifically, I considered the availability of the particles and the expression of

contrast in different types of adverbial clauses, adopting Haegeman and Endo's (forthcoming) typology, and complement clauses, based on Hooper and Thompson's (1973) classification of factive and non-factive predicates. The key result here was that while contrastive elements could appear in a subset of embedded contexts – to an extent, at least, mirroring the distribution of embedded root phenomena – the discourse particles could not. In addition, the possibility was raised that contrast in the two languages is expressed in a relational way, i.e. by moving the relevant element not to a specific position, but to any position that creates a different structural relation between it and the rest of the clause as compared to its neutral position. Furthermore, independent evidence for a distinct position for the particles came from the phenomenon of topic particle stranding: Nasu (2012) shows that a lone topic particle *wa* is very much an addressee-related phenomenon and that with respect to its distribution, it patterns with sentence-final particles rather than fully spelled-out *wa*-topics, in being more restricted in embedded environments. This, I argued, is an indication, first, of a position higher than the CP for the discourse particles, and second, a piece of evidence for reconsidering the typically unitary notion of 'discourse syntax'. Instead of grouping information-structural notions, such as that of contrast, and more speaker- and addressee-oriented phenomena together, they should be treated separately. As such, the emerging picture departs from the traditional tripartite VP-TP-CP view of the syntactic spine (for an overview of the expansion of the syntactic spine, see Travis (2014)); instead, in accordance with the USH, the size of sentences varies relative to their linguistic context, and in certain contexts, such as conversations, it turns out that structure beyond CP is needed.

While chapters 3 and 4 focused on the Grounding Layer, in chapter 5 I showed that in certain contexts the structure has to grow beyond this and incorporate a higher Response Layer. The need for this layer was argued for based on different types of Japanese questions and the behaviour of the question marker *ka* in them. Essentially, Yokoyama (2013) argues that *ka* in information-seeking questions requires an addressee argument to be present in a higher Speech Act Layer (my Grounding Layer), while *ka* in non-information-seeking questions, such as rhetorical and conjectural questions and wh-excalamtives, does not. I showed that this cannot be the whole story: information-seeking and non-information-seeking questions do not differ with respect to the presence or absence of an addressee. Instead, the differences

between the question types can be captured through how they call on the addressee to respond – information which, according to Heim and Wiltschko (2017), is encoded in the Response Layer. I then showed that the Finnish particles interact with the Call on Addressee as well, producing a rhetorical interpretation and thus interacting with the Response Layer. However, the particles were shown not to wholly erase the option of an information-seeking interpretation, introducing gradience into the interpretations: this, I argued, is due to Gricean reasoning.

Chapter 6 explored the notion of gradience further. I discussed null pronouns and possessive suffixes in Finnish, showing that their referential properties are best captured relationally. Following Patel-Grosz (2018), I argued that pronominal elements of different strengths of – null, personal, and demonstrative – form a hierarchy and their referential properties are best viewed from a relational perspective. Crucially, while null third person subjects take a c-commanding local topic as their antecedent, demonstratives take a contextually determined, non-topic antecedent, with personal pronouns falling between these two categories. What emerges is a model where there are syntactically determined options – the c-commanding topic condition for antecedents of null pronouns and the non-topic antecedent for demonstratives – but between these endpoints falls a grey area that accounts for the gradience observed in the data: personal pronouns can take either type of antecedent, and sometimes null pronouns can occur without a c-commanding antecedent and demonstratives with a topic antecedent. The same was shown to hold with respect to third person possessive suffixes: a null possessive pronoun requires a c-commanding antecedent, while an overt possessive pronoun can refer to either a c-commanding or a contextually given antecedent. Again, there is a grey area between the two points, with lone possessive suffixes being able to occasionally appear without an overt antecedent. This is accounted for through the pragmatically determined grey area.

Turning to Japanese, I showed that a similar hierarchy can be established for Japanese case marker drop, where, at the one end, wholly null arguments realize unmarked functions, such as when the referent of the argument is active information, and wholly spelled-out arguments occur in marked cases, such as when the referent is new or inactive information. Arguments without case markers then fall between the two

endpoints, realizing pragmatic functions in between the two extremes. However, this does not account for the distribution of the case markers alone: it was shown that they cannot be, following Heycock (2008), purely pragmatic elements but must functionally encode the notions of nominative and accusative marking. In order to capture the phenomenon of case marker drop, Heycock's analysis of *ga* and *o* as formally case markers has to be laced with the above mechanism of pragmatic interpretation based on their position on the hierachy of nullness.

What emerged from chapter 6, then, is that gradience in judgements has to be taken seriously. However, this does not mean that it is syntactically encoded; rather, the intermediate cases between clear endpoints are often better captured through pragmatic reasoning, based on hierarchies and relations between different elements. So, although my main argument that discourse can and should be syntactically encoded holds, it does not mean that all instances of discourse-related functions are syntacticized. Gricean reasoning must be given space, too. Languages will differ with respect to which pragmatic notions they grammaticalize, and to what extent; thus, it is expected that different languages will show different cut-off points on the kinds of hierarchies discussed here, both in terms of what the points are and how many, if any, there are of them. Furthermore, the greater articulation of the Japanese Grounding Layer as compared to its Finnish counterpart can be viewed as resulting from a greater degree of grammaticalization of discourse-related elements. However, the findings here cannot be taken to straightforwardly support a simplistic typology where some languages grammaticalize more pragmatic notions across the grammar than others by default; I will turn to implications the findings here may have to the comparison of Finnish and Japanese below.

Research into the syntacticization of discourse is undoubtedly a rapidly growing field, and something of a linguists' goldmine. The discussion here on Finnish and Japanese has therefore only scratched the surface, and, as with any piece of research, it opens up avenues for future study. Here, I identify four such strands.

The first strand is a language-specific one: do the discourse-related structures argued for the Finnish and Japanese clausal left and right peripheries have reflexes elsewhere in the structure? It was noted already in chapter 5 that the Japanese polite marker -

mas- may well be an instance of a lower, discourse-related periphery at the vP edge. The question should also be cast with respect to nominal structure. In chapter 3, I noted the possibility that *-hAn* and *-pA* reflect a nominal discourse-related periphery; this option follows from analyzing them as being first merged as determiner-type elements on their hosting constituents, rather than as clausal heads. In chapter 6, in turn, I raised the question of the nature of the so-called case markers *ga* and *o* in Japanese, and how they call for a more discourse-sensitive take on case than has traditionally been assumed. That the same layers of structure recur throughout the syntax is expected if one adopts the USH: Wiltschko (2014) discusses anchoring both in the verbal and nominal domains, showing, for instance, how case in the nominal domain and the subjunctive in the verbal domain can both be analyzed as instances of dependent anchoring. The recurrence of structures and categories across domains, creating a fractal structure to language (for discussion, see Biberauer (2018)), is a conceptually desirable outcome from a minimalist perspective: as was noted in chapter 2, it is both theoretically more parsimonious – hence more economical – and more effective from an acquisitional point of view than the postulation of more layer-specific features at the expense of recurring patterns.

The second strand for further research takes a cross-linguistic perspective. The work here opens up even further avenues for typological studies to map out the kinds of points of variation that the speaker and addressee domain can show across languages. For example, how much do languages differ in the degree of articulation of the highest layers? It was shown in chapter 3 that the Japanese Grounding Layer is more articulated than the Finnish one. A related question is what aspects of speaker and addressee different languages tap into, and how this is reflected in variations in self-talk, as noted above. For instance, in Finnish the addressee category can include addressees that are the speaker as well, but in Japanese there is an important distinction between addressees that are not the speaker and those that are. The USH is designed to capture a great deal of cross-linguistic variation, and as such it offers a powerful methodological tool for such comparative work.

In conjunction with the recurrence of structures and categories noted above, the findings here raise the question whether the more specific articulation of the Japanese speaker and addressee categories will be repeated in structures beyond the particles as

well. One such case may be the Japanese politeness marking system. It involves both honorifics and humilifics: while subject honorifics exalt the subject referents, humilifics are used to show respect to a non-subject referent by demoting the subject referent (Hasegawa, 2015). (3a) illustrates a honorific structure, while (3b) has a humilific structure:

(3) a. Okada-san wa niku o o-tabe ni nar-anai.
Ms Okada TOP meat ACC eat.HON become-NEG.PST
"Ms Okada does not eat meat."
(from *ibid*.:259)

b. Watashi wa Okada-san kara hon o o-karishita.
I TOP Ms Okada from book ACC borrow.HUM.PST
"I borrowed a book from Ms Okada."
(from *ibid*.:264)

It would seem that here a more fine-grained encoding of the speaker and addressee is called for than in a system, such as Finnish, where grammatical politeness is loosely based on addressing the addressee in the second person plural and thus simply on exalting the addressee. How these differences would be precisely encoded is something I leave for future research.

Another example of how the lesser or greater articulation of the speaker and addressee categories may affect syntactic options is the multifunctionality of the Finnish particles *-hAn* and *-pA*. As shown above, they interact with the Response Layer in ways that the more specific Japanese particles do not. Of course, the issue is further complicated by the different natures of the particles, the Finnish ones attaching to phrases and interacting with focus, while Japanese particles do not attach to a specific phrase. It should also be noted that just because the speaker- and addressee-related particles in the two languages are more or less specified, particles associated with different projections need not follow the pattern; the Japanese question particle *ka*, for example, was shown to appear with both information-seeking and non-information-seeking questions.

Importantly, though, the phenomena I have discussed highlight the need to, at times, go beyond the USH, and consider the ways in which grammars can harness both specific locations in the structure, as is emphasized in the USH framework, and capitalize on relations between different elements, whether this be on hierarchical scales – as in the case of pronouns of different strengths – or based on relations created through movement – an option raised with respect to the expression of contrast in Finnish and Japanese. A question to be asked, then, is how languages differ in making use of relational means versus specific locations, and whether there are limits and patterns to this. The findings here do not support a broad typology where certain languages rely more on specific locations, while others are more characterized by the use of relational means. Although Japanese was shown to have more specific positions in its Grounding Layer than Finnish, both languages use relational strategies to mark contrast, for example.[102]

The third point builds on the discussion in chapter 6 and the observation how hierarchies of elements can explain cases of gradience. The natural follow-up question is what elements, traditionally taken to be governed by purely syntactic principles, such as the case markers and pronouns discussed here, languages can employ for pragmatic purposes. The findings here alone cannot be used to argue that there are strict principles determining what elements a language can use to form a scale: in Finnish, pronominal elements and third person possessive marking form a scale, while in Japanese case marker drop does. That Finnish does not utilize case marker drop for pragmatic purposes in the way Japanese does may be the result of Finnish case marking being more fused into the noun stem than in Japanese. Independent morphological and phonological factors should therefore be taken into account when comparing the means that different languages use to realize discourse-

[102] It should be noted here how other characteristics of the languages to be compared may complicate the picture. For example, Miyagawa (2010) argues that topic and focus features are essentially parallel to φ-features, in that they establish functional relations in the same way as φ-features establish agreement in agreement languages and that the two types of features occupy the same functional projections. Miyagawa identifies Japanese as an example of a language that does not have φ-feature agreement, while Finnish uses both. As such, the interaction of topic and φ-features in Finnish, but not in Japanese, should be taken into account when attempting a more thorough comparison of the relational strategies in the two languages.

related phenomena. A useful guideline for identifying these means is the original motivation for Patel-Grosz's (2018) work on pronominal systems: it stems from the observation that there are deficits in the understanding of the form and meaning of anaphora, and that one way forward is to capitalize on the scalar nature of many pronominal systems. This, along with the deficits identified in the syntactic understanding of Finnish null arguments and Japanese case markers, further highlights the necessity of allowing pragmatics into syntax in cases where the data are not quite as clear-cut as a purely syntactic approach would predict.

The fourth and final point to be raised here concerns the implications that the integration of pragmatics into syntax has for language acquisition. The acquisition of speaker- and addressee-related elements – as opposed to information-structural ones – is an under-researched field, despite the fact that acquisition is very much based on spoken language, characterized by a high concentration of speaker- and addressee-related elements (Biberauer, 2018). Bringing pragmatics into syntax predicts that the acquisition of relevant elements will depend on the development of non-syntactic cognitive abilities. It has been observed in several studies that information-structural elements are acquired slower than other structures (Höhle, Berger and Sauermann, 2018); Platzack (2001 cited in Marinis, 2004:359), for example, observes that children acquiring their first language, children with SLI, adult L2 learners and patients with Broca's aphasia all have difficulties with structures involving the Left Periphery but not with those involving lower layers.[103] This is often attributed to information structure requiring an advanced system of social-cognitive abilities, so that the developmental challenge here involves the interfaces between the Left Periphery and other modules of the linguistic and cognitive system (Höhle, Berger and Sauermann, 2018). In the Minimalist Program, the development of the different structural domains – the core elements of the USH – does not need to take place in a uniform way, and as such the slower development of the Left Periphery can reflect difficulties with the pragmatic system, which does not cause issues for the lower domains (Marinis, 2004).

[103] It should be noted, though, that not all left-peripheral structures, or even lower versus higher structures, are equal in respect: Tsimpli (2005), for instance, observes that focusing and interrogatives are acquired earlier than dislocation and topicalization patterns in Greek. This is argued to relate to whether the features to be acquired are LF-interpretable or not, the former being acquired earlier.

My analysis of the elements in the Grounding and Response Layers makes similar predictions. Furthermore, as the particles studied here are crucially speaker- and addressee-related, also Theory of Mind considerations come into play, especially with respect to addressee-oriented elements. Some preliminary support for this comes from Shirai, Shirai and Furuta (2000), who found that the order of acquisition of various sentence-final particles in Japanese corresponds roughly to the children's cognitive development and the Theory of Mind. For instance, the understanding of joint attention precedes the understanding of beliefs (Baron-Cohen, 1991 cited in *ibid*.:7), and references to the past precede comparisons of two different situations (Astington, 1993 cited in *ibid*.:7). Shirai, Shirai and Furuta note that *ne* as a request for joint attention is acquired before *kana* as an expression of wondering, thus relating to beliefs; *noni* as an expression of complaint based on a comparison between the real situation and expectations is acquired later yet. Furthermore, according to Watamaki (1997 cited in *ibid*.:7), Japanese autistic children fail to use *ne*, in line with difficulties with the Theory of Mind.

Another interesting avenue for research from an acquisition perspective is how speaker- and addressee-related elements may function as valuable indicators for other aspects of language structure. Biberauer (2018) proposes that speaker-addressee perspective is formally encoded at the edges of phases, and as such they can serve as signals for edge properties in the acquisition process; this is especially important if phases vary in size across languages.

Measuring children's pragmatic acquisition is a complex matter: as Höhle, Berger and Sauermann (2018) note, there are significant methodological difficulties in assessing children's comprehension abilities in this respect. Even so, the particles studied here can offer important insights into how the acquisition of syntax interacts with other cognitive development and the Theory of Mind in particular.

Despite the growing array of phenomena and theoretical frameworks pointing towards the syntactic importance of speakers and addressees as well as the role of gradience, it is not – yet – a truth universally acknowledged that a syntactic theory in possession of explanatory adequacy must be in want of pragmatic projections. However, I hope that

the coupling up of Finnish and Japanese for the purposes of this discussion has made some further way towards better accepting the idea that syntax and pragmatics might just make a decent match.

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